

FINAL REPORT

DADE COUNTY

E.P.S.D.T.

DEMONSTRATION PROJECT

JULY 1976 - SEPTEMBER 1979

DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES

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Center

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THE DADE COUNTY E.P.S.D.T. DEMONSTRATION PROJECT

The Dade County E.P.S.D.T. Demonstration Project consisted of a team of multi-disciplined researchers with individuals trained in public health, human service systems, health care administration, community psychology, educational psychology, social work, psychiatry, and medicine. Other professionals and agencies also contributed to making the Project such a complete success. They included: Dynamic Control Corporation, International Planning Associates, the University of Miami Departments of Pediatrics and Psychiatry, Grant Center Hospital, Hastings Associates, Zenith Communication Group, the Greater Miami Epilepsy Foundation, Norman Walker and Associates, the Comprehensive Health Care Program, and the Department of Health and Rehabilitative Services.

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JOHN WOOD
PROJECT MANAGER

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EXECUTIVE SUMMARY

INTRODUCTION

The Dade County Early and Periodic Screening, Diagnosis and Treatment (E.P.S.D.T.) Demonstration Project was funded by the Department of Health, Education and Welfare (DHEW) in July, 1975. Due to delays at the State level, it was July 1976 before the Project actually began operations. At that time the Project focused on the five priority E.P.S.D.T. issues of the DHEW. These areas included: Case Monitoring, Developmental Assessment, Collaboration with Schools, improved services to the Older Child and Collaboration among Community Agencies. The following paper is a final report of Project activities in each one of these areas.

The Project staff would like to acknowledge the continuous help and support from the Florida Department of Health and Rehabilitative Services and its many agencies and representatives who contributed so selflessly to make the Project such a complete success.

CASE MONITORING COMPONENT

Systematic client focused case management for E.P.S.D.T., as tested by the Project, demonstrated substantial improvement over procedures and techniques currently employed by the Florida Medicaid system in: 1) shows for screening appointments within 60 days from request for screening, 2) shows for first treatment appointments within 60 days from screening completion, 3) rates of problem resolution within 120 days from screening, and 4) rates of case completion (screened within 60 days from request and treated within 60 days from screening).

The Experimental package used in case monitoring included personnel specifications, training guidelines, resource materials, and a case management information system (MIS). The principal objectives of the MIS were to maintain simplicity and a client focus on the development of the management package. In addition to being extremely effective (89% successful case completion rate of those screened), it also resulted in a reduction of case management costs by 70% with no concomitant increase in service costs.

Based on Project findings, it is recommended that a case monitor act as broker and manager for the delivery of health care services. The case monitor should also act as a health consumer advocate and counselor.

The Project further recommends that given appropriate training, information management tools, and supervision, this job can be handled by a person with a high school education who is able to follow oral and written instructions. The monitor should be involved in the development of resource manuals and public relations with providers. Also, the collection of case management information should be his or her responsibility.

It is recommended that there be some type of authorization for non-legal guardians, who receive AFDC grants for dependent children to enable them to partake of E.P.S.D.T. services.

The Project recommends the elimination of over-scheduling appointments by county health departments and lengthy time lapses between date of scheduling and date of appointments. These situations can cause clients to think that their appointment is unimportant and unnecessary.

Further, the Management Information System is strongly recommended for use by E.P.S.D.T. Programs. With few modifications, it could be implemented in nearly every state. Also, with some modifications, it has the potential to be adapted to a wide variety of applications for use in other public service programs.

DEVELOPMENTAL ASSESSMENT COMPONENT

A classical public health screening validation model was applied to two developmental assessment instruments. Although the results for the two techniques were mixed, the model was feasible and worked well.

The two purposes for the Developmental Screening Component of the E.P.S.D.T. Demonstration Project were: 1) to evaluate the ability of two independent developmental screening techniques to conform to selected standards for a public health screening device, and 2) to determine the cost for administering each of the screening techniques.

The screening instruments were administered to two

samples of children; one drawn from the Medicaid eligible population and the second from a non-Medicaid elementary school population. The findings of the screening techniques were then compared to professional diagnoses and with the results of established and recognized testing procedures.

An analysis of the effect of the tester on the outcome of the two screening devices was performed. No meaningful differences among the three testers was found. A model for calculating the cost of administering each of the two screening devices was formulated. Though both tests proved to be inexpensive, quick, and simple to administer, neither of the two screening instruments could be recommended by this study for national implementation. Their effectiveness in detecting developmental disabilities (intellectual dysfunction, emotional problems and learning disabilities) was not confirmed.

The Project recommends further exploration for possible alternative instruments for assessing developmental disabilities. These instruments should be inexpensive, quick and simple to administer and should lend themselves to administration by paraprofessionals. This is necessary in order for a large number of cases to be screened inexpensively.

Further, the classical public health screening validation model of Armistead and Crawford (1974) is highly recommended as an excellent method to evaluate alternative instruments.

SCHOOLS COMPONENT

The school intervention study revealed that intervention by school personnel via an appointment reminder letter did not increase the proportion of kept screening appointments. It also highlighted three factors which further led to the conclusion that school intervention was not useful as a case management technique. First, only a small proportion of E.P.S.D.T. eligible children could potentially benefit from the procedure. This is true because: (1) nearly half of all E.P.S.D.T. eligibles do not attend school, and (2) schools are closed for several months out of the year, whereas the E.P.S.D.T. program is a year-round activity. Furthermore, it takes at least one week and the involvement of several people (the case monitor, school representative, and the child) for the reminder to reach the parent. There is a strong probability that the appointment date will have passed by the time the

letter is received or that the letter will be lost in transit. Finally, in the case of rescheduled or cancelled appointments, confusion resulted if the reminder letter from the school arrived after the appointment had been changed. Based on the above factors, the Project recommends that School Intervention not be used as a tool to facilitate the provision of health care services to Medicaid eligible children.

The results of the handicapped study led to the conclusion that the Project's attempt to identify learning handicapped children in the public schools, based on a diagnostic work-up by a psychiatrist, was of limited value to the public schools as well as to the students. This was in large part due to the policy differences which exist between the Medicaid program and the State of Florida's special education program. Therefore, the Project recommends that there be a narrowing of policy differences between the two programs. This would result in a more coordinated effort between public health clinicians and educational professionals which would be of benefit to learning handicapped children.

OLDER CHILD COMPONENT

One of the major goals of the Project was to develop innovative approaches to make medical services more available, appropriate and relevant to the older child. The Project worked with prominent health care professionals in Dade County to establish guidelines for identifying and treating health care problems experienced by teenagers. This effort was implemented through the creation of a multi-media information package for providers of health services.

The older child multi-media information package was completed on schedule in June, 1978. However, due to unforeseen State procedural requirements and the inability of the planner/designer and printer to coordinate efforts, the final completion of the package was greatly delayed. The Project will distribute the package to health care providers prior to its termination. Enclosed in the package will be instructions that the providers comment directly to the Health Care Financing Administration (HCFA). Further, the Project staff hopes that the information package will be as helpful to the Department of Health Education and Welfare and the providers as it was to the interdisciplinary staff who actively participated in its design and production.

ADVISORY COUNCIL COMPONENT

In recognition of existing community expertise in the provision of health care services, the E.P.S.D.T. Demonstration Project established an Advisory Council. The Council was comprised of agencies and/or individuals intimately involved in the delivery of medical services to children.

The Project found that after the first few months, attendance at the Advisory Council meetings decreased. The members felt that the E.P.S.D.T Program was only minimally relevant to their agencies and/or their positions in the community. They felt that work more closely associated with their own agencies had priority. Further, the members knew they could have little input on a Project so tightly controlled by State and Federal regulations. Yet, it is important to note that Advisory Council members did exert influence and change in specific local matters. The Council members made their greatest contributions as individuals when called upon for their expertise and influence in resolving health care problems of children.

Based on Project findings, it is recommended that formal advisory councils not be used for short-term, special demonstration projects. However, it is also recommended that special projects become acquainted with all of the agencies and individuals within their community involved with activities similar to those of the Project. These agencies and individuals should be educated about the Project's goals and objectives so that, if needed, they can be called upon for their particular expertise. Such consultants could prove to be an invaluable source of knowledge and, therefore, could be of great assistance to the Project.

CASE MONITORING

INTRODUCTION

The Dade County E.P.S.D.T. Demonstration Project was one of several national projects located throughout the country. It was designed to provide a laboratory site to develop and evaluate effective measures for implementing various components of the E.P.S.D.T. program. The goal of the Project was to develop and document innovative techniques to insure integration of the Medicaid eligible child into the health care system. Specifically, it developed case management techniques to: (a) increase the accessibility of health care services to Medicaid-eligible children and (b) document the movement of clients through the E.P.S.D.T. system using a computerized on-line automated management information system (MIS). This system was created by the Project Manager in collaboration with Dynamic Control Corporation, Coral Gables, Florida. The MIS was used for both management and analytical purposes and for documenting and processing of Case Monitoring Component data. It was also fully compatible with existing and proposed Florida State and Federal reporting systems impacting on public assistance clients.

Overview

The Case Monitoring Component was a study of the effects of case intervention by Project case monitors (social work assistants) on a tri-ethnic sample of children whose parents or guardians indicated an interest in E.P.S.D.T. screening to the workers of Social and Economic Services (SES). SES is identified in the Florida State Plan as a component of the Department of Health and Rehabilitative Services which acts as the "single state agency" for Medicaid. These effects of intervention were measured in a field experiment comparing rates of "shows" for screening, "shows" for diagnosis and treatment, rates of problem resolution, and case completion for (1) an Experimental Condition Group receiving case intervention by Project social work assistants; and (2) a Contemporary Control Condition Group receiving services currently provided by SES personnel. In addition, a Historical Control Condition Group was tracked using records and compared with the two Contemporary Groups.

The following data were collected for each client in the Case Monitoring study and formed the Project case record:

- 1) Background data on each client
- 2) Administrative data
- 3) E.P.S.D.T. system events and outcome data

In addition, data on the type and amount of personnel time spent on case intervention activities were collected

for cases in the Experimental Condition.

Background data included control variables for analysis. Administrative data was used for Project management and evaluation. Data on E.P.S.D.T. system events and outcome were used both for Project management and as a source of information on dependent variables for analysis.

Background information and Project administrative information were obtained from Project sampling forms, (Appendix I) from SES Payments and Service Unit Records, and from interviews with the child's parent or guardian (the Health Decision Maker). This information was entered on a Project Registration Form (Appendix I).

E.P.S.D.T. systems event and outcome data were obtained from health department records, provider interviews, and from interviews with the health decision maker. A Project Problem Referral Form was initiated for all problems identified at screening (Appendix I).

Whenever a transaction occurred on a case, the case monitor performing the transaction entered this activity and its time duration on a Project Transaction Form (Appendix I). Transaction forms served a dual purpose: (1) they provided a means of updating case record information and (2) they provided time and substantive data on case intervention activities for process and cost analysis.

A detailed description of data collection and

tracking procedures for cases in the three experimental conditions can be found in the Procedures section. The study area, evaluation objectives, definition of terms, hypotheses, design and procedures for the Case Monitoring Component follow this discussion.

Study Area

In order to facilitate the interface of the E.P.S.D.T. Demonstration Project with District XI Social and Economic Services (SES), SES Service Units were used as the geographical unit for the Project.

The target population for the Case Monitoring Component consisted of children of AFDC clients living within the geographical boundaries of SES General Service Units 22, 33, 35 and 46 who requested E.P.S.D.T. screening (see Figure 1). The Project found that there was not a substantial number of Spanish welfare recipients being served in the SES service areas; therefore, the Cuban Refugee Assistance Program (CRA) Unit 41, was included in the study. There was only one CRA service unit which served all of Dade County. The geographical boundaries of the study area were as follows: N.W. 215 Street from Okeechobee Road southeast to N.W. 103 Street, east to N.W. 37th Avenue, and from North Miami Avenue to N.W. 79th Street, then N.W. 79th Street west to N.W. 7th Avenue, N.W. 7th Avenue south to N.W. 36th Street, N.W. 36th Street east to Biscayne Bay, Biscayne Bay south to the Miami River,

E.P.S.D.T. DEMONSTRATION PROJECT STUDY AREA

STUDY AREA BOUNDARIES

- ```

1: SES Service Units 33,22
 SES Applications Units 30, 36
 SES Payments Units 10,12,37,8

2: SES Service Unit 35, 46
 SES Applications/Payments
 Units 42,14,38,44,13
 SES Payments Unit 32

3: CRA Service/Applications/Payments

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### HEALTH DEPARTMENT UNIT BOUNDARIES

- A: 46th Street Unit  
B: Downtown Unit  
C: South Miami Unit  
D: North Miami Unit

COMPREHENSIVE HEALTH CARE PROGRAM  
TARGET AREA



Miami River northwest to N.W. 36th Street and N. W. 37th Avenue, north to N.W. 79th Street. The CRA unit is delineated by the Dade County boundaries.

The Project study area contained the highest concentration of Medicaid clients in Dade County. This meant that enough cases were obtained for projected Project sample in a geographical area served by only four SES Service Units and the CRA unit. There were two SES Applications Units, five SES Payments Units, and five combined Applications/Payments Units which served AFDC clients.

The target population was served by four Dade County Health Department Units (see Figure 1): the Downtown Unit, located at 1350 N.W. 14th Street; the 46th Street Unit, located at 2987 N.W. 46th Street; the North Miami Unit located at 14101 N.W. 8th Avenue; and the South Miami Unit located at 5798 S.W. 68th Street. These four Health Department facilities provided E.P.S.D.T. screening services to the Case Monitoring Component samples, since they provided these services to clients living within the area.

In addition, there were three independent subcontractors to the County Health Department who provided screening. The Family Health Center Incorporated had two locations, one at 5601 N.W. 27th Avenue and one at 7200 N.W. 22nd Avenue. Clinica Borinquen located at 161 N.W. 29th Street, also provided screening. The Comprehensive Health Care Program (CHCP) an administered program of the University of Miami,

located at 1400 N.W. 10th Avenue, provided screening, diagnosis and treatment.

It is important to note that CHCP only served children living within the area bounded by N.W. 36th Street, Biscayne Bay, the Miami River and N.W. 27th Avenue. This area was located entirely within the Project study area (see Figure 1).

During the Project period there were approximately 8,800 AFDC families living within the study area. With an average of 2.5 children per family, there was an estimated population of 22,000 children who were eligible for E.P.S.D.T. services.

Initially the Project intended to gather data on 2,000 children. However, in order to compile more data for the Management Information System, particularly to demonstrate how it operated after major modifications in February of 1978, the Project decided to increase the Experimental sample by extending the collection of data from October 31, 1978 to January 11, 1979.

#### Research Population

A maximum of 3,900 cases were selected from this population to be tracked through the E.P.S.D.T. system between 1 December 1976 and 31 March 1979. These cases were divided between the two contemporary groups (Experimental 2,345 and Control 1,464) and were selected from files of Medicaid clients who requested E.P.S.D.T. screening between 1 December 1976 and

31 October 1978. In order to track the Contemporary Control Group, it was necessary to wait until six months after they had requested E.P.S.D.T. to initiate the tracking of their progress through the E.P.S.D.T. program. Since this tracking took from three to six months it was necessary to use only those Contemporary Control cases which requested E.P.S.D.T. before 30 June 1978. This total for the Contemporary Control sample was 1,188.

In the original 1977 Research Design regarding the Historical Control Group, the Project intended to sample 1,000 cases. However, it proved to be time consuming and costly to search through the Assistant Payments Records (APR) and there was considerable data lost. Consequently, cost and time limitations required the sample size to be limited to 300 cases. Of these cases, 14 had incomplete data and were eliminated from the sample which had a total of 286 cases. The Historical sample of 300 Medicaid-eligible children whose parents or guardians requested E.P.S.D.T. screening between 1 January 1975 and 30 June 1976, was drawn from the geographical area described in the previous section.

Demonstration Project ethnic group definitions differed from the Census Bureau definitions because the Case Monitoring Component was investigating the responses of persons in three different cultural groups to case intervention techniques. Thus, the ethnic groups were based on a person's self-perception of his cultural background.

Cases were divided among three ethnic categories, based

on the cultural background of the parent. These categories represent Black non-Spanish, Spanish and White non-Spanish cultural groups. Within each ethnic group, cases were subdivided into two age categories (0-5 years, 6-20 years). Since the sampling universe is not equally distributed among the three ethnic categories, quota sampling was utilized in order to obtain cases in each ethnic category.

#### Definition of Terms

- a) Case: A unit of analysis which represents the child, between birth and 21 years of age who was a Medicaid eligible member with a unique CRA or SES Family/Member number. Note that under this definition, each child in a multi-child family was considered a separate case. Children from the same family (family being defined by a unique family number) cannot appear in both the Control and Experimental groups of the Case Monitoring Component.
- b) Tracking: Involved documenting the progress of a case through the screening, diagnosis and treatment components of the E.P.S.D.T. system. It began with the request for E.P.S.D.T. screening and ended with the resolution of all health problems associated with the case.
- c) Case Intervention: Involved facilitating the case

through the screening, diagnosis and treatment components of the E.P.S.D.T. system. Facilitating meant adding or guiding the child and child's parent or guardian through the system by means of letters, phone calls, arrangements and/or personal contact by a case monitor.

- d) Case Monitoring: The process of (a) tracking alone or (b) tracking plus case intervention. It began with the request for screening and ended with case completion.
- e) Case Monitor: A person whose state job classification was a Social Work Assistant. This person performed case monitoring activities. Case Monitors were Project staff, employed by the Project, i.e., they were not regular Social Work Assistants employed by SES.
- f) Experimental Condition:<sup>1</sup> Cases in which Case Monitoring included both tracking and case intervention. This group contained approximately 2,550 of the subjects in the Case Monitoring Component.
- g) Contemporary Control Condition: Cases in which case monitoring involved tracking only. This group

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<sup>1</sup> "Condition" and "Group" are used interchangeably for the sampling groups.

contained approximately 1,200 of the subjects in the Case Monitoring Component.

- h) Historical Control Condition: Cases processed through the E.P.S.D.T. system between January 1, 1975 and June 30, 1976 which were retrospectively tracked for comparison with the two contemporary groups. This group contained approximately 280 of the subjects in the Case Monitoring Component.
- i) Ethnic Group Categories:
  - (1) Group I - Persons who considered themselves to be members of the Negro race. Negroes of Latin cultural heritage, however, were included in the Spanish ethnic category.
  - (2) Group II - Persons who considered themselves to be of Latin heritage and culture, regardless of whether they were U.S. Citizens. Negroes of Latin cultural heritage were included here.
  - (3) Group III - Persons who considered themselves to be members of the White race and who did not consider themselves to be of Latin cultural heritage were included here.
- j) Age Categories:
  - (1) 0 - 5 Years - Children for whom the State was required by Federal law to notify annually about E.P.S.D.T. services. Children remained



in this age category until they reached their 6th birthday.

- (2) 6 - 21 years - Children for whom the State was required by Federal law to notify every three years about E.P.S.D.T. services. On their twenty-first birthday, children were no longer eligible for E.P.S.D.T. services.

- k) First Treatment: The first show for treatment after screening completion or if referred, the first referral appointment kept.

#### METHOD

Because of restrictions placed on this Research and Demonstration Project by the State of Florida, sampling was restricted to occur after the AFDC client was informed of the services available through E.P.S.D.T. A maximum of 4,186 cases were selected from this population to be tracked through the E.P.S.D.T. system between December 1, 1976 and January 11, 1979. Of these cases, 3,900 were divided between two contemporary conditions (Experimental and Control) and were selected from files of Medicaid clients who request E.P.S.D.T. screening between December 1, 1976 and January 11, 1979. The remaining 286 cases comprised the Historical Control Condition: these cases were selected from files of Medicaid clients who requested E.P.S.D.T. screening during the period beginning January 1, 1975 and ending June 30, 1976.

Cases in each condition were divided among three ethnic categories, based on the cultural background of the parent. These categories represented Black non-Spanish, Spanish, and White non-Spanish cultural groups. Within each ethnic group, cases were subdivided by age (0 - 5 years, 6 - 20 years). Quota sampling was utilized in order to obtain a representative sample of the population being studied.

Data on the cost-effectiveness of case intervention by Social Work Assistants was obtained from Project Time Accounting Forms completed on a daily basis. Descriptive statistics were used to evaluate cost-effectiveness.

### Hypotheses

The effectiveness and cost of case intervention by Project case monitors were investigated in terms of the following hypotheses:

H<sub>0</sub>(1): There is no difference in the probabilities of children showing up for the screening appointment within 60 days from the time the request for screening is made for Experimental, Control and Historical Control Groups.

H<sub>0</sub>(2): There is no difference in the probabilities of children who have problems identified at screening showing up for treatment within 60 days from screening completion for Experimental, Control and Historical Control Groups.

H<sub>0</sub>(3): There is no difference in the probabilities of problem resolution within 120 days from the date of screening completion for Experimental, Control and Historical Control Groups.

$H_0(4)$ : There is no difference in the probabilities of case completion (screened within 60 days from request and treated within 60 days from screening) for Experimental, Control and Historical Control Groups.

Null Hypothesis No. 1: There is no difference in the probability of cases showing up for screening within 60 days from the time a request for screening is made by children receiving case intervention (Experimental Group) and children not receiving case intervention (Contemporary Control Group and Historical Control Group). These cases were evaluated for equivalency, controlling for ethnicity, age and other relevant variables (listed below).

Variables Tested:

(a) Control Variables

- Ethnicity
- Age of child
- Sex of child
- Parent's occupation
- Parent's employment
- Parent's education level
- Primary language spoken at home
- Income level of family
- Intact family
- Head of family
- Health decision maker
- Source of medical care at time of screening
- Transportation

(b) Independent Variables

- Case intervention
- Case monitor

(c) Dependent Variables

- Show for screening

Not all of the control variables were included in the analysis of the hypotheses because information on all the variables was not available for the two Control Groups.

Data Sources: SES Payments and Service Records; Health Department medical records; Medicaid provider reimbursement records (data from these sources were used to form Project Case records).

Null Hypothesis No. 2: There is no difference in the probability of children who have problems identified at screening showing up for first treatment within 60 days from screening completion for Experimental, Control and Historical Control Groups. These cases were evaluated in the three research conditions for equivalency, controlling for ethnicity and age and other relevant control variables (listed below).

Variables Tested:

(a) Control Variables

Variables listed under Hypothesis No.1  
plus the following:  
Initial or referral provider  
Identified medical problem

(b) Independent Variables

Case intervention  
Case monitor

(c) Dependent Variable

Show for treatment

Data Sources: SES Payment and Service Records;  
Health Department medical records; Medicaid provider  
reimbursement records; provider interviews.

Null Hypothesis No. 3: There is no difference in  
the probability of problem resolution within 120 days  
from the date of screening completion for Experimental,  
Control and Historical Control Groups. These cases were  
evaluated for equivalency, controlling for ethnicity, age  
and other relevant control variables (listed below).

Codes of Problem Resolutions were:

1. Referral services
2. Moved from area, loss of eligibility, or for reasons outside Project control
3. Missed three appointments
4. Can not locate
5. Still under treatment
6. False positive screen
7. Condition noted
8. Treatment completed
9. Outcome unknown

Null Hypothesis No. 4: There is no difference in  
the probability of case completion within 120 days from  
the date of screening completion for Experimental, Control  
and Historical Control Groups. These cases were evaluated  
for equivalency, controlling the ethnicity, age and other  
relevant control variables (listed below).

Codes of Case Completion were:

1. Negative screened
2. One or more problems not resolved

3. Previously screened
4. Not screened
5. Treatment not completed
6. Unknown
7. One or more problems resolved or treated at least once.

Variables tested for Null Hypothesis 3 and 4:

(a) Control Variables

Variables listed under Hypothesis No.1,  
plus the following:  
Initial or referral provider  
Identified medical problem  
Number of identified problems

(b) Independent Variables

Case intervention  
Case monitor

(c) Dependent Variables

Problem resolution  
Case completion

Data Sources: SES Payments and Service Records;  
Health Department medical records; provider contacts;  
interview with child's parent or guardian.

Objectives

The two research design objectives for the Case Monitoring Component were:

Objective No. 1:

To compare case outcomes of children who received intervention from Project case monitors (experimental group) with case outcomes of children who received E.P.S.D.T. support services from Social and Economic Services (Contemporary Control group and Historical Control group) in terms of:



- (a) Rates of shows for screening for all cases
- (b) Rates of shows for the first diagnosis/treatment appointment for cases with problems identified at screening
- (c) Rates of problem resolution for each problem identified at screening or during the course of treatment
- (d) Rates of case completion for all cases

Objective No. 2:

To determine the incremental cost per case of case intervention by Project case monitors, and to evaluate the cost in terms of:

- (a) Rate per case
- (b) Rate of screening completion
- (c) Rate of case completion

The measurement of the cost of case intervention by Special Work Assistants is an essential component of evaluating its efficiency. Originally, the cost of screening and diagnosis/treatment, as well as, allocation costs of case intervention to various activities were determined separately. However, the Case Monitoring costs were aggregated across all services because the collection of data became more time consuming than service delivery, and because it split E.P.S.D.T. into a screening program and a treatment program when, in fact, public policy requires it to be a comprehensive health care program.

The Project used the same health care providers and clinics as the State; therefore, it may be assumed that both groups experienced approximately the same costs for

health care services. Since these costs were constant for the Project and the State, they were not included as part of the management cost study. The case management indirect costs were also identical to the state costs and were not included.

Variation was studied in the personnel time and resulting personnel costs involved in case management. The case intervention costs were based upon the percent of total personnel hours committed to this component. Research costs were not included in the cost of case intervention; however, the percent of total personnel hours committed to research activities was recorded.

Project Transaction Forms were used to determine the amounts of personnel time committed to case intervention activities (See Appendix I for a copy of the form). Transaction Forms were filled out by the Project case monitors and their supervisor.

In addition to the Transaction Forms, cost data was obtained from the following sources:

1. Project accounting records
2. Medicaid provider payments
3. Project case records

The following costs were determined for Experimental and Contemporary Control Group cases:

1. Average cost per case
2. Average cost per show for screening (case intervention cost)

3. Average cost per case completion for those cases with problems identified at screening (case intervention costs).

These costs are discussed in terms of rates of (1) per eligible cases, and (2) case completion for cases in the Experimental Group. These rates were compared to Control Group rates to evaluate the cost effectiveness of case intervention by Social Work Assistants.

The data collected and aggregated as part of the case intervention data analysis are discussed in the following manner:

Descriptive statistics pertaining to be the background characteristics of the sample were used in bivariate crosstabulations and univariate frequency distributions showing the basic distribution of cases by ethnicity and other salient background displayed for Experimental, Contemporary Control and Historical Control Groups. When the distribution of cases with respect to a given variable differed significantly between Experimental and Control Groups, or between Historical and Contemporary Control Groups, this was taken into account as a possible source of invalidity in subsequent analytical comparisons. Chi square analysis was used to determine the existence of these relationships.

#### Procedures

The following section includes sampling, tracking and case intervention, data collection, and case monitor

procedures as well as a timetable for performance.

### Sampling

Originally there was to be an equal number of cases from each of the ethnic groups. However, there were very few White or Spanish families in the original Project area. In the first month, only 4 White and 24 Spanish surname children were drawn in the sampling from SES Service Units 22, 33, and 35 as compared to 226 Black children. Thus, a decision was made to add SES Service Unit 46 to this Project sampling area because of high concentration of White non-Spanish in this area. This was initiated on 4 April 1977. Additionally, on 15 June 1976 the Cuban Refugee Assistance Program (CRA) Unit 41 was added to the Project sampling area to overcome shortage of Spanish families in the sample.

Since the number of Whites requesting services did not meet the sample quota, all Whites requesting services were included in the sample and were randomly assigned to the Experimental and/or Control Groups.

When representatives from the Department of Health and Rehabilitative Services of the Office of Evaluation in Tallahassee reviewed the Project's sampling procedures, they suggested that valid generalizations concerning the Medicaid client population could be drawn from a much smaller Control sample. Therefore, on 8 August 1977 the sample for the

Control Group was modified to be approximately half that of the Experimental Group. Consequently, the Experimental to Control sampling ratio became about two to one.

As mentioned in the Study Area section, after a major revision of the Management Information System (MIS) in March of 1978, the sample size of the Experimental Group was increased in order to collect as much additional data as possible on the operation of the MIS before the completion of the Project.

In the SES and CRA system serving Medicaid clients, there were four times when the client was informed of the E.P.S.D.T. program: 1) at the client's initial application interview, 2) the client's 6-month payments review interview, 3) the client's periodic service interview, and 4) a letter sent to the client by the service worker describing SES and CRA services (including E.P.S.D.T.).

Because of the restrictions placed on this research and demonstration Project by the State of Florida, sampling had to occur after the client was informed of the services available through E.P.S.D.T. Therefore, the sample was drawn from Medicaid clients indicating an interest in E.P.S.D.T. during the above four events. The Historical sample involved a retrospective search of case records; the Contemporary conditions involved tracking of children currently involved in E.P.S.D.T.

Contemporary Sample

Two forms were used for drawing the Contemporary samples: (1) the Information Transmittal/Interim Contact Record (Form 7514), currently used by SES units for inter-unit communications concerning Medicaid clients; and (2) the Client Information Form, designed by the Demonstration Project for use by CRA and SES unit workers in those cases where the 7514 Form was not appropriate (copies of these forms can be found in Appendix I).

The 7514 Form was completed on those Medicaid clients requesting E.P.S.D.T. during their interviews with their Applications and Payments Units. These forms were routinely completed for E.P.S.D.T. requests and sent to the appropriate Service Units. For Project purposes, however, CRA and SES Applications and Payments workers indicated the client's ethnicity and the number of Medicaid eligible children in their family in addition to information normally entered on the form.

The Client Information Forms were completed by service unit personnel on all Medicaid clients indicating an interest in E.P.S.D.T. services during their periodic service review interviews and in response to the letter describing SES services. Information requested on the Client Information Form was the same as that requested on the 7514 Form.

Both forms were collected daily by the Project

Planner/Evaluator from the four SES Units and the CRA Unit serving the research population. There was one form for each Medicaid client requesting E.P.S.D.T. services. Since the unit of analysis was the child's case, all children within a Medicaid family, whose form was selected for inclusion in the sample, were added to the sample and were assigned to the appropriate ethnic category. Forms were selected on the basis of ethnic quotas as explained previously. Cases for these categories were chosen by systematic probability sampling. Medicaid families were then randomly assigned to either the Experimental Group or the Control Group. Sampling was done daily; the number of cases sampled varied with the caseload and the number of case monitors. This was done in an attempt to determine an optimum case load for each case monitor.

Medicaid clients who were part of the Experimental Group cases were assigned to Project case monitors for case intervention and tracking; clients and case monitors were ethnically matched as much as possible. Clients not included in the sample, as well as clients who were assigned to the Control Group, were processed through the E.P.S.D.T. system by the CRA and SES Service Units (the normal procedure). Control Group cases, however, were tracked by case monitors in addition to receiving the regular E.P.S.D.T. processing by the CRA and SES Service Units.<sup>2</sup>

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<sup>2</sup>No child was deprived of services to which he was entitled by virtue of his/her being included in either the Experimental or Control Groups.

Children who (1) lost their Medicaid eligibility or (2) moved out of the study area after they were assigned to case monitors were considered closed cases as they were no longer considered part of the Project's responsibility. This method was commonly employed in both the Experimental and Control Groups. Further, it is important to note those who were dropped because they left the area were referred to the appropriate SES Service Unit in their new area of residence.

#### Historical Sample

The Historical Group Sampling Form (HCSF) was used to select cases for the Historical Group (See Appendix I for a copy of the form). Names of clients were obtained from Assistance Payments Records in the SES Payments Units serving the research population. These records contained all requests for E.P.S.D.T. services which occurred through the applications and payments client interviews. The HCSF was completed for AFDC clients meeting the following criteria: (1) requested E.P.S.D.T. services between January 1, 1975 and June 30, 1976; (2) lived within the study area at the time of the request; (3) was eligible for E.P.S.D.T. services at the time of the request; (4) could be categorized as either Black non-Spanish, Spanish, or White non-Spanish.

The HCSF's were completed and the sample was drawn



on the basis of ethnic quotas. Sampling was done periodically throughout the first year and a half of the Project, with approximately thirty cases drawn each time for a total of 300 cases. Cases were assigned to case monitors for retrospective tracking. By the end of the research effort, however, the case monitor's supervisor performed the follow-up interviews to determine case resolution.

#### Tracking and Case Intervention

Figure 2 diagrams the flow of events in the District XI E.P.S.D.T. system for Medicaid clients living in the study area. As mentioned in the discussion of the sampling procedures above, Project cases were selected from those Medicaid children whose parent or guardian requested screening from his or her CRA or SES Applications, Payments or Service caseworker. It was at this point that case records were initiated on all cases and tracking and case intervention activities were initiated for Experimental Group subjects. Tracking of Historical Control Group cases began at the time the case record was initiated. The kinds of data gathered on all Case Monitoring Component cases are described later in the Data Collection Section.

As can be seen in Figure 2, there is no way to determine whether a child with problems identified at screening actually gets to treatment in the present E.P.S.D.T.

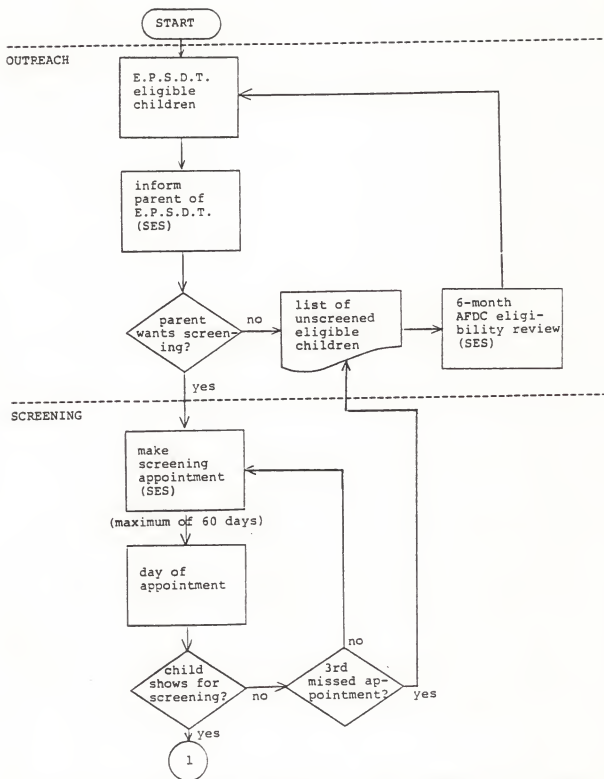


Figure 2. FLOW CHART OF EXISTING DISTRICT XI E.P.S.D.T. SYSTEM FOR AFDC CLIENTS

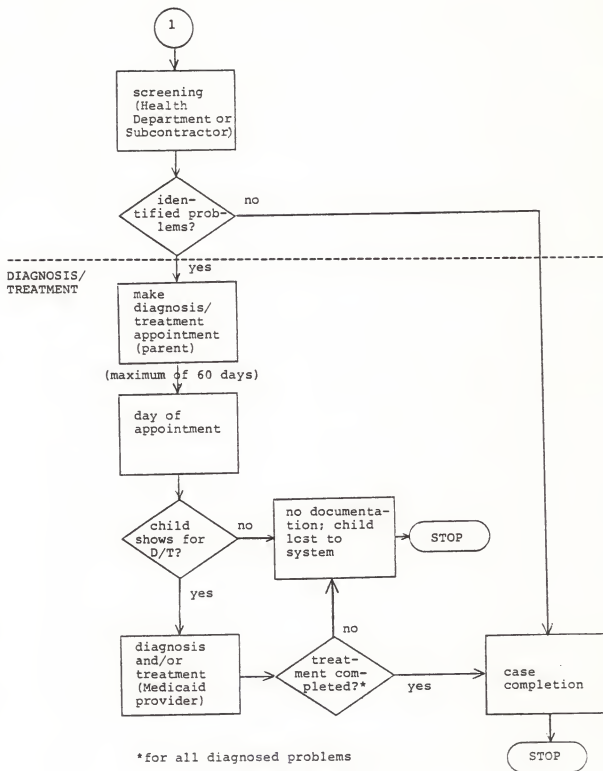


Figure 2 - continued

system. In most cases it is not known which provider the child goes to for treatment since the parent is given a list of appropriate providers and makes the appointment him/herself. Treatment outcomes are known only if the provider returns the E.P.S.D.T. transmittal form to either the Health Department or SES (Health Department and SES case workers estimate that provider forms are returned for less than 5% of the cases). To determine whether the present E.P.S.D.T. system serves the preventive health care needs of Medicaid-eligible children, it was essential to track the E.P.S.D.T. case through treatment completion.

Tracking of Control Group cases was done through examination of SES Service Case Records and Health Department records at least six months after the request for screening was made. This waiting period was necessary so as not to affect the progress of these cases through the E.P.S.D.T. system.

For Historical Control Group cases, tracking began with the examination of SES and Health Department records. When sufficient recorded information was obtained, these Medicaid clients and the appropriate Medicaid providers were interviewed to complete the children's case records.

Tracking of Experimental Group cases occurred as part of case intervention. Background information was obtained when the Medicaid client was first contacted by

the case monitor to set up the screening appointment. Providers of treatment for those cases with problems identified at screening were to be contacted within one work day of the first treatment appointment to determine whether the appointment was kept and the treatment status of the case

Case intervention for Experimental Group clients occurred throughout their progress through the E.P.S.D.T. system. Case intervention activities included: (1) educating the parent or guardian as to the benefits of preventive health care for their children, (2) making screening appointments and rescheduling when necessary, (3) arranging for transportation to screening and treatment, (4) reminding parents/guardians of screening and treatment appointments, (5) providing information on Medicaid providers appropriate to their children's problems, and (6) generally facilitating their progress through the E.P.S.D.T. system. Case intervention activities can take the form of phone calls, letters, and/or face-to-face contact.

A detailed chart of case intervention and tracking activities is presented in Appendix II. Case intervention activities for Experimental Group cases are compared to SES casework activities for E.P.S.D.T. clients in this chart.

### Data Collection

The following kinds of data were collected for all cases in the Case Monitoring study and formed the child's project case record (Background information on the child and his family):

- Medicaid number
- Name
- Date of birth (age)
- Place of birth
- Sex
- Ethnicity
- Health decision maker
  - Date of birth (age)
  - Primary language
  - Ethnicity
- Screening site
- Date case was screened
- Screening results (problems identified)
- Treatment provider
- Date(s) case was treated
- Problem resolution (outcome and dates)
- Case completion (outcome and date)

In addition to the above information, data on the cost of medical treatment was collected for the two contemporary groups (Experimental and Control Groups). Data on the type and amount of personnel time spent on case intervention was collected for the Experimental and Control Group cases.

Background information data elements were used to form control variables for analysis. Because this study emphasized the effects of case intervention on persons of various cultural backgrounds, it was necessary to obtain detailed background information on these cases. Administrative

data was used for the administration of Project management and research activities. Data on E.P.S.D.T. system events and outcome were used both for Project administration and to form dependent variables for analysis.

Background information and Project administrative information were obtained from the three sampling forms, from SES Assistance Payments Records, SES Service Case Records and from interviews with the child's parent or guardian. This information was entered on a Project Registration Form (See Appendix I for a copy of the form). Transferring information contained on the appropriate sampling form onto the Registration Form and the entry of these data into the management information system constituted the opening of a case record in the Case Record File.

E.P.S.D.T. service and transaction information was obtained from several sources, depending in which sample condition the case was. A Project Problem Referral Form was initiated for all problems identified at screening. Initially, for Experimental Group cases, this form was sent to the treatment provider who was instructed to return it to the Project with the appropriate resolution or status of the problem. However, since all providers had telephones, it was determined that it would be more expedient and less costly to obtain the problem status by telephone and then record this information on the Transaction Form.

For Contemporary Control and Historical Control Group cases, a Control Group data Form was completed during a telephone interview with the provider. (See Appendix I for a copy of the form and list of problem categories).

Figure 3 shows the types of problem resolution/status categories used on the Problem Referral Form. These categories were used to form the problem resolution codes for statistical manipulation (refer to Section on Definition of Terms for a list of these codes). A case was considered resolved when a Problem Resolved code (codes 1 - 8 in Figure 3) could be assigned to each problem identified at screening.

#### PROBLEM RESOLUTION AND STATUS CATEGORIES

##### Problem Resolved (Treatment Completed, Terminated or Not

##### Initiated

1. No problem (false positive screen)
2. Treatment was completed
3. Condition noted, treatment not advisable or warranted
4. Still under treatment
5. Referred to another provider
6. Treatment not completed (child stopped coming for treatment)
7. Not treated (child missed 3 consecutive appointments, refused treatment)
8. Outcome unknown (information not available, family moved from study area, family no longer eligible)

Figure 3. Problem resolution and status categories



For Experimental Group cases, E.P.S.D.T. service and transaction information was also obtained from ongoing contacts with the child's parent and with the screening and treatment providers. For cases in the Control and Historical Groups, this information was obtained from SES Service case records and provider interviews.

Updating case records occurred as additional background, administrative and E.P.S.D.T. system data were found or when transactions on the case occurred. In this way, each case record in the computerized case file contained not only background information, but the current status of the case as well. A case was considered closed when all background information had been obtained and entered on the Case Record and a case resolution code had been assigned to the case.

Whenever a transaction was performed on a case, the person performing the transaction entered the activity and its time duration on a Project Transaction Form (See Appendix I for a copy of the form). When appropriate, the name of the person contacted and data obtained during the transaction were also entered on the Transaction Form. This was done initially but took longer to record than did the actual performance of this activity. Thus, when the major revision of the MIS in March 1978 occurred, the data collection procedures were modified so that only

activities that in some way affected that status of the case were recorded. Transactions and worker time were recorded separately on a Case Monitor Daily Time Summary Sheet (see Appendix II) on a daily basis and allocated monthly to various activity categories.

These forms were used for three purposes: (1) to provide a means of updating case record information, (2) to provide information on the work activities of Case Monitors and (3) to provide time and substantive data on case intervention activities in order to determine the costs involved in case intervention and kinds of case intervention done on Experimental Group cases.

#### Timetable for Performance

Figure 4 diagrams the Case Monitoring Component events and system processes throughout the Project.

#### Case Monitors

One of the key issues studied by the Dade County E.P.S.D.T. Demonstration Project was Case Monitoring. Case Monitoring involved the assignment of children to workers who then followed their clients through the various stages of screening, diagnosis and treatment to ensure their integration into the health care system. Intervention by workers could occur at any stage within the process in order

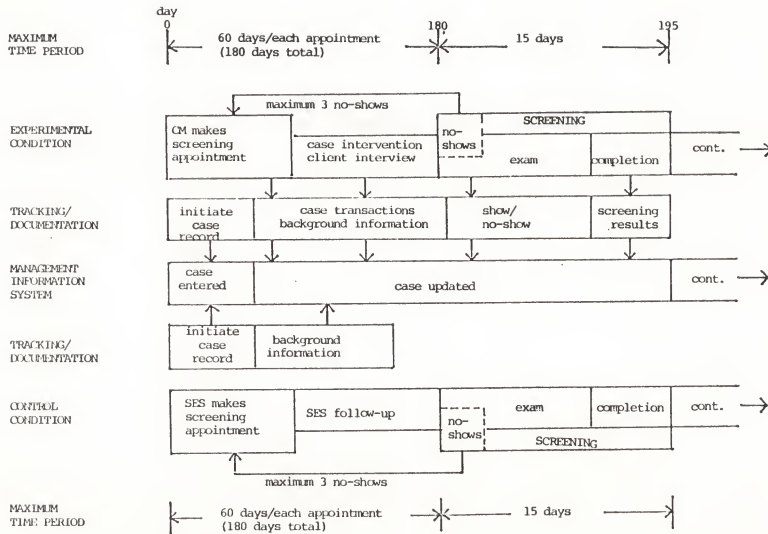


Figure 4

TIME TABLE FOR INDIVIDUAL CASE: EXPERIMENTAL AND CONTROL CONDITIONS

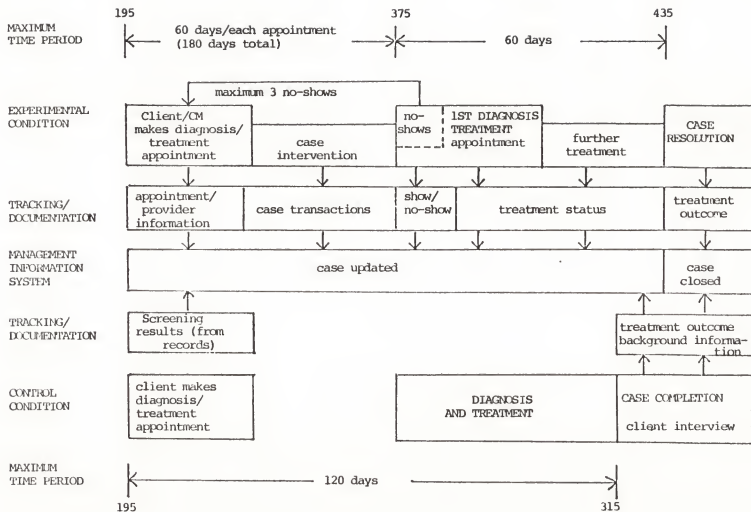


Figure 4 - continued

to make certain that the children received maximum services to meet their particular needs.

The Case Monitoring Component, which was developed and tested by the Project, included an Experimental Group case monitors and a supervisor (Sector Coordinator). These staff members were assisted in their daily activities by an automated client information system, also developed by the Project.

The original Project proposal stated that ten case monitors would be hired to track approximately three thousand cases through the health care system. However, it was found that fewer monitors were needed. Four case monitors were hired to track and assist Medicaid-eligible children through the system and two case monitors were hired to aid in the collection of information about clients for research purposes.

The case monitor was similar to the State Social Worker Assistant and required that the monitor be able to successfully perform a number of duties and responsibilities. These included: providing support services to clients on an individual basis; making home visits to Experimental Group Medicaid eligible families which had requested E.P.S.D.T. services; educating families on the importance of good health care and the need for periodic examinations and treatment; contacting health care providers and clients to ensure open lines of communication; assisting clients in the use of HRS

and other community resources; and compiling all required data so that the Project's Management Information System could be operative (See Appendix III).

The education and experience requirements for this position were that the case monitors have a High School diploma or its equivalent and be able to follow written and oral instructions. Further, in the hiring of case monitors, the Project kept in mind that it would need workers who were of similar ethnic backgrounds as its clients (Black, Spanish and White non-Spanish).

All of the case monitors went through an intensive three-day training session when they were hired. At this time they were provided with the basic skills needed to successfully perform their job (See Appendix III). In addition, there were regularly scheduled inservice training sessions throughout the year. These training sessions were in areas such as motivation, communication and listening techniques. Further, every week the case monitor supervisor held two staff meetings, one was held with all of the case monitors and the other was an individual session to talk about any aspects of the job which the workers felt were important to discuss. These training sessions seemed to be extremely beneficial and adequately prepared the case monitors for most of their job functions.

### ANALYSIS OF FINDINGS

The actual number of cases included in this study differed from the number of cases originally selected through sampling. The Project found that there were 117 more cases in the Experimental Group and 34 more cases in the Contemporary Control Group. This was because the sample was drawn from the screening request forms which did not always reflect accurately the number of eligible cases in a family. The case monitor sometimes found that when she made home visits, there would be family members, other than those originally requesting services. The monitor would then add those children to the Experimental sample.

For the Contemporary Control Group the number of children brought in for screening by the health decision maker would sometimes differ from that in the original request. The health decision maker herself might decide to be screened if she found that she was eligible. These additional cases were added to the sample because they were listed in the monthly printouts of eligible clients used to obtain screening information.

The Control groups had several cases for which the outcome was unknown. This gap in the data occurred for several reasons:

- 1) Provider's telephone number was changed to an unpublished number; therefore, results of treatment could not be obtained.
- 2) Cases could not be located in the Medicaid records office in Dade County. Consequently, the site of screening and problem identification

- 3) Clients lost their eligibility between time of request for E.P.S.D.T. and screening.
- 4) Providers did not respond to telephone or letters after attempts were made for 3 consecutive months.

There were a total of 286 cases in the Historical Control Group. When categorized as to ethnicity, 114 (40%) were Black; 101 (35%) were Spanish; and 71 (25%) were White (Table 1). Of the 61 cases screened, 44 were considered to have a positive screen (Tables 2 and 3). Of these, 33 (75%) had one problem; 10 (23%) had two problems; and one (2%) had three problems. The distribution of problem types was: 39 (69%) dental; 8 (14%) vision; and 9 classified as other.

TABLE 1  
ETHNICITY BY SAMPLE CONDITION

SAMPLE CONDITION

| Ethnicity | Contemporary<br>Experimental |      | Contemporary<br>Control |      | Historical<br>Control |      |
|-----------|------------------------------|------|-------------------------|------|-----------------------|------|
|           | N                            | %    | N                       | %    | N                     | %    |
| Black     | 1275                         | 50   | 624                     | 51   | 114                   | 40   |
| Spanish   | 999                          | 39   | 465                     | 38   | 101                   | 35   |
| White     | 278                          | 11   | 133                     | 11   | 71                    | 25   |
| TOTAL     | 2552                         | 100% | 1222                    | 100% | 286                   | 100% |



TABLE 2  
SCREENING OUTCOME BY SAMPLE CONDITION

## SAMPLE CONDITION

| Screening Outcome   | Contemporary Experimental |      | Contemporary Control |      | Historical Control |      |
|---------------------|---------------------------|------|----------------------|------|--------------------|------|
|                     | N                         | %    | N                    | %    | N                  | %    |
| Not Screened        | 752                       | 29   | 726                  | 59   | 183                | 64   |
| Screened            | 1525                      | 60   | 338                  | 28   | 61                 | 21   |
| Previously Screened | 267                       | 10   | 146                  | 12   | 42                 | 15   |
| Missing             | 8                         | 1    | 12                   | 1    | 0                  | 0    |
| TOTAL               | 2552                      | 100% | 1222                 | 100% | 286                | 100% |

TABLE 3  
SCREENING CLASSIFICATION BY SAMPLE CONDITION

## SAMPLE CONDITION

| Screening Outcome | Contemporary Experimental |      | Contemporary Control |      | Historical Control |      |
|-------------------|---------------------------|------|----------------------|------|--------------------|------|
|                   | N                         | %    | N                    | %    | N                  | %    |
| Negative Screen   | 559                       | 37   | 88                   | 26   | 17                 | 28   |
| Positive Screen   | 966                       | 63   | 250                  | 74   | 44                 | 72   |
| TOTAL             | 1525                      | 100% | 338                  | 100% | 61                 | 100% |

Of the 1,222 cases in the Contemporary Control Group, 624 (51%) were classified as Black; 465 (38%) Spanish; and 133 (11%) as White. Of these cases, 338 were screened. No problems were found for 88 (26%) of these cases, one problem for 162 (48%), two problems for 69 cases (20%) and 19 cases had three or more problems. Of those problems detected, 204 (57%) were of a dental nature; 56 (16%) visual; and the remaining were other problems.

Of the 2,552 cases in the Contemporary Experimental Group 1,275 (50%) were classified as Black 999 (39%) Spanish; and 278 (11%) White. Of the 1,525 cases that were screened, 559 (37%) were considered to be negative screens. Of those considered positive, 689 (44%) had one problem; 275 (17%) had two problems; 50 (3%) had three problems, and 10 had four problems. Of the problems identified at screening, 827 (63%) were dental, 215 (16%) vision, with the remainder classified as other.

Each group was divided almost equally between male and female.

The federal E.P.S.D.T. regulation in force at the time required screening to be completed within 60 days from request. This 60 day time limit for screening is used in many of the screening tables.

As seen in Table 2, the Contemporary Experimental group was more than twice as likely to be screened as the

other groups -- Experimental (60%), Historical (21%) and Contemporary Control (28%). A client had a higher probability of being screening within 60 days from request if he was the child or grandchild of the health decision maker. A client had the lowest probability if he, himself was the health decision maker. The client's sex or age, and the health decision maker's sex, age, or years of education were not significant as determinants of whether a case was screened within 60 days from request.

The ethnicity of the health decision maker was not a factor in the Historical Group in getting a case to screening within 60 days of request. The three ethnic groups (Black, Spanish, White) had a very low percentage, from 4% to 10%. However, in the Contemporary Control Group, the Black and Spanish had a 22% rate of being screened within 60 days from request; whereas the White had only a 5% rate. In the Contemporary Experimental condition, the Black group had the highest rate (52%) of being screened within 60 days from request, while the Spanish and White groups had a 39% rate (Table 4).

Of those who were screened in all three groups (Contemporary Experimental, Contemporary Control, Historical Control), between 26% and 37% had negative screens (Table 3). The number of days to screening completion for those screened is displayed in Table 5.

TABLE 5  
NUMBER OF DAYS TO SCREENING COMPLETION FOR  
POSITIVE AND NEGATIVE SCREENS BY SAMPLE CONDITION

| Screening<br>Time in Days | Sample Condition             |      |                         |      |                       |      |
|---------------------------|------------------------------|------|-------------------------|------|-----------------------|------|
|                           | Contemporary<br>Experimental |      | Contemporary<br>Control |      | Historical<br>Control |      |
|                           | N                            | %    | N                       | %    | N                     | %    |
| 0 - 60                    | 1028                         | 67   | 212                     | 63   | 15                    | 25   |
| 61 - Highest              | 497                          | 33   | 126                     | 37   | 46                    | 75   |
| TOTAL                     | 1525                         | 100% | 338                     | 100% | 61                    | 100% |

TABLE 4  
SCREENING SUCCESS RATE\* BY ETHNICITY BY SAMPLE CONDITION

| Ethnicity           | Contemporary<br>Experimental |      |     | Contemporary<br>Control |     |     | Historical<br>Control |    |    |
|---------------------|------------------------------|------|-----|-------------------------|-----|-----|-----------------------|----|----|
|                     | N                            | n    | %   | N                       | n   | %   | N                     | n  | %  |
| Black               | 1110                         | 578  | 52  | 532                     | 114 | 21  | 108                   | 4  | 3  |
| Spanish             | 914                          | 350  | 38  | 415                     | 92  | 22  | 68                    | 7  | 10 |
| White               | 255                          | 100  | 39  | 116                     | 6   | 5   | 67                    | 4  | 6  |
| TOTALS <sup>+</sup> | 2279                         | 1028 | 45% | 1063                    | 212 | 20% | 243                   | 15 | 6% |

\* Cases screened within 60 days from request for Screening

<sup>+</sup> Tables do not include previously screened cases

N=Total requests for screening

n=Total screened of those requesting

The mean number of days from request to screening completion was 58 for the Experimental Group, 60 for the Contemporary Control Group and 51 for the Historical Group.

Although the average number of days is lowest for the Experimental condition, it is high when one considers that 67% of the children who completed screening, were screened within 60 days from request (Table 6). This was due to several factors :

- 1) If the health decision maker was already eligible, it took a minimum of three days from request until the Project received the request form because the forms were transmitted to the Project.
- 2) If a health decision maker needed certification for her eligibility it took approximately two to three weeks before the form reached the Project. This was due to the lag time between request and eligibility certification. This lag time could be as much as 30 days.
- 3) There was a substantial number of cases which were reopened after a period of three months to a year or longer. This caused these clients to have a long lag time between request and screening completion.
- 4) Through careful review of screening data after the first year, it became evident that several screening clinics had extremely low screening completion rates. This was a result of their failure to complete screening during a single visit. Some cases never completed screening while others took three months or longer. Consequently, the Project Manager met with clinic directors to stress the importance of completing a screening in one visit. Statistical comparison clearly indicated that higher screening completion rates could be achieved if screening was conducted in only one visit; noting this, the clinic directors agreed to comply.

The above factors caused the distribution to be skewed to the right resulting in a high mean number of days for screening completion.

TABLE 6  
NUMBER OF SCREENING COMPLETIONS BY SAMPLE CONDITION

| Screening<br>Completion      | SAMPLE CONDITION             |      |                         |      |                       |      |
|------------------------------|------------------------------|------|-------------------------|------|-----------------------|------|
|                              | Contemporary<br>Experimental |      | Contemporary<br>Control |      | Historical<br>Control |      |
|                              | N                            | %    | N                       | %    | N                     | %    |
| Completion<br>Within 60 days | 1028                         | 45   | 212                     | 20   | 15                    | 6    |
| Completion<br>Over 60 days   | 497                          | 22   | 126                     | 12   | 46                    | 19   |
| Incompletions                | 760                          | 33   | 738                     | 68   | 183                   | 75   |
| TOTALS*                      | 2285                         | 100% | 1076                    | 100% | 244                   | 100% |

\* Totals do not include Previously Screened cases

$$\chi^2_{(2)} = 301.03, p < .001$$

The Null Hypothesis No.1 in the Hypotheses section was not confirmed. There does appear to be a difference in the probabilities of children showing up for their screening appointment within 60 days from the time the request for screening was made among the Contemporary Experimental, Contemporary Control, and Historical Control Groups. The Contemporary Experimental Group had the highest rate (45%) of cases getting to screening within 60 days from request (Table 6).

A chi square test of independence led to a rejection of the null hypotheses at the .001 level of significance. Furthermore, the data indicate that the relationship is in the direction hypothesized. This lends strong support to the working hypothesis that there is a relationship between case monitoring and rate of show for screening appointments within 60 days from request.

Table 7 displays for each case the number of days from problem identification (screening) to first treatment. The Null Hypothesis No. 2 discussed in the Hypotheses section was rejected. There does appear to be a difference in the probabilities among the Contemporary Experimental, Contemporary Control and Historical Control groups, of children who have problems identified at screening showing up for treatment within 60 days from screening completion. A chi square was performed to examine the relationship of the three groups to the rate of show for treatment within 60 days from screening. The chi square test of independence led to a rejection of the Null Hypothesis at the .001 level. This lends strong support to the working hypothesis that there is a relationship between case monitoring and rate of show for treatment within 60 days from screening. The client's sex or age and the health decision maker's relationship, age, sex or ethnicity and the type of problem were not significant for any of the sample condition in getting a child treated within 60 days

from screening.

TABLE 7  
NUMBER OF DAYS FROM PROBLEM IDENTIFICATION TO FIRST TREATMENT  
FOR EACH CASE BY SAMPLE CONDITION

| Days         | SAMPLE COMPLETION            |      |                         |      |                       |      |
|--------------|------------------------------|------|-------------------------|------|-----------------------|------|
|              | Contemporary<br>Experimental |      | Contemporary<br>Control |      | Historical<br>Control |      |
|              | N                            | %    | N                       | %    | N                     | %    |
| 0 - 60       | 750                          | 96   | 76                      | 84   | 19                    | 76   |
| 61 - Highest | 28                           | 4    | 14                      | 16   | 6                     | 24   |
| TOTAL        | 778                          | 100% | 90                      | 100% | 25                    | 100% |

Mean = 21.8  
Minimum = 0  
Maximum = 373

Mean = 32.9  
Minimum = 0  
Maximum = 134

Mean = 30  
Minimum = 0  
Maximum = 81

$$\chi^2_{(2)} = 40.25, p < .001$$

Table 8 shows for each problem the number of days from problem identification (screening) to first treatment. Most problems were treated initially within 40 days from identification for all sample conditions.



TABLE 8  
NUMBER OF DAYS FROM PROBLEM IDENTIFICATION TO FIRST TREATMENT  
FOR EACH PROBLEM BY SAMPLE CONDITION

| Days          | SAMPLE CONDITION             |      |                         |      |                       |      |
|---------------|------------------------------|------|-------------------------|------|-----------------------|------|
|               | Contemporary<br>Experimental |      | Contemporary<br>Control |      | Historical<br>Control |      |
|               | N                            | %    | N                       | %    | N                     | %    |
| 0 - 20        | 603                          | 55   | 51                      | 46   | 17                    | 55   |
| 21 - 40       | 333                          | 30   | 18                      | 16   | 4                     | 13   |
| 41 - 60       | 74                           | 7    | 25                      | 23   | 3                     | 10   |
| 61 - 80       | 40                           | 4    | 8                       | 7    | 5                     | 16   |
| 81 - 100      | 16                           | 2    | 6                       | 5    | 1                     | 3    |
| 101 - 120     | 13                           | 1    | 1                       | 1    | 0                     | 0    |
| 121 - Highest | 11                           | 1    | 2                       | 2    | 1                     | 3    |
| TOTAL         | 1090                         | 100% | 111                     | 100% | 31                    | 100% |

Mean = 24.438  
Minimum = 0  
Maximum = 218

Mean = 32.207  
Minimum = 0  
Maximum = 134

Mean = 33.645  
Minimum = 0  
Maximum = 196

For each problem, the number of days from problem identification (screening) to problem resolution is shown in 20 day increments in Table 9. More than 50% of the problems of the problems were resolved within 60 days from identification.

The Null Hypothesis No. 3 discussed in the Hypotheses section was rejected. There appears to be a difference in the probabilities among the sample conditions (Experimental, Contemporary and Historical Control) of problem resolution

within 120 days from the date of screening. (Table 10). A chi square was performed to examine the relationship of the three sample conditions to the rate of problem resolution within 120 days from screening. The chi square test of independence led to a rejection of the null hypothesis at the .001 level of significance. This lends strong support to the working hypothesis that there is a relationship between case monitoring and rate of problem resolution within 120 days from screening.

TABLE 9  
NUMBER OF DAYS FROM PROBLEM IDENTIFICATION TO PROBLEM RESOLUTION  
FOR EACH PROBLEM BY SAMPLE CONDITION

| Days      | SAMPLE CONDITION             |      |                         |      |                       |      |
|-----------|------------------------------|------|-------------------------|------|-----------------------|------|
|           | Contemporary<br>Experimental |      | Contemporary<br>Control |      | Historical<br>Control |      |
|           | N                            | %    | N                       | %    | N                     | %    |
| 0 - 20    | 372                          | 35   | 23                      | 27   | 6                     | 24   |
| 21 - 40   | 336                          | 32   | 14                      | 17   | 5                     | 20   |
| 41 - 60   | 147                          | 14   | 16                      | 19   | 3                     | 12   |
| 61 - 80   | 75                           | 7    | 9                       | 11   | 6                     | 24   |
| 81 - 100  | 54                           | 5    | 9                       | 11   | 0                     | 0    |
| 101 - 120 | 29                           | 3    | 3                       | 3    | 0                     | 0    |
| 121 - +   | 42                           | 4    | 10                      | 12   | 5                     | 20   |
| TOTAL     | 1055                         | 100% | 84                      | 100% | 25                    | 100% |

TABLE 10  
TREATMENT COMPLETION IN DAYS FROM PROBLEM IDENTIFICATION TO  
PROBLEM RESOLUTION FOR EACH PROBLEM BY SAMPLE CONDITION

| Treatment<br>Completion in<br>Days | SAMPLE CONDITION             |      |                         |      |                       |      |
|------------------------------------|------------------------------|------|-------------------------|------|-----------------------|------|
|                                    | Contemporary<br>Experimental |      | Contemporary<br>Control |      | Historical<br>Control |      |
|                                    | N                            | %    | N                       | %    | N                     | %    |
| 0 - 120                            | 1013                         | 96   | 74                      | 88   | 20                    | 80   |
| 121 - +                            | 42                           | 4    | 10                      | 12   | 5                     | 20   |
| TOTAL                              | 1055                         | 100% | 84                      | 100% | 100%                  | 100% |

$$\chi^2_{(2)} = 23.086, p < .001$$

The number of days from request for E.P.S.D.T. to case completion are shown in Table 11. Even though the average number of days was 89 for the Experimental Group and 86 for the Control Group, over 50% of the cases were completed within 80 days. There was not a sufficient number of completed cases in the Historical Group to make inferences.

The average number of days from request to case completion for the Experimental Group was high because it was affected by the same factors which affected the average number of days from request to screening completion. This was because

the period of time from request to screening was included in the time from request to case completion.

TABLE 11  
NUMBER OF DAYS TO CASE COMPLETION BY SAMPLE CONDITION

| Days          | Contemporary<br>Experimental |      | Contemporary<br>Control |      | Historical<br>Control |      |
|---------------|------------------------------|------|-------------------------|------|-----------------------|------|
|               | N                            | %    | N                       | %    | N                     | %    |
| 0 - 20        | 46                           | 3    | 12                      | 7    | 1                     | 3    |
| 21 - 40       | 188                          | 13   | 30                      | 19   | 2                     | 5    |
| 41 - 60       | 300                          | 21   | 31                      | 19   | 3                     | 7    |
| 61 - 80       | 245                          | 18   | 21                      | 13   | 5                     | 13   |
| 81 - 100      | 186                          | 13   | 14                      | 9    | 1                     | 3    |
| 101 - 120     | 137                          | 10   | 20                      | 12   | 6                     | 16   |
| 121 - Highest | 308                          | 22   | 35                      | 21   | 40                    | 53   |
| TOTAL         | 1410                         | 100% | 163                     | 100% | 38                    | 100% |

Mean = 88.55  
Minimum = 8  
Maximum = 401

Mean = 85.57  
Minimum = 4  
Maximum = 386

Mean = 148.3  
Minimum = 2  
Maximum = 577

Previously screened cases were not included in the totals for case completion for the two control conditions. The previously screened cases requesting treatment were included in the Experimental condition. The Experimental

condition was four times as successful as the Control conditions in having their cases completed within the time limit of 1) screened within 60 days from request, and 2) treated within 60 days from screening (Table 12). Other variables such as the case's age or sex or the health decision makers' sex or years of education did not make a significant difference in the probability of whether a case would be completed within the above time frame. This was true for all three sample conditions.

Data collected revealed that most of the health decision makers were the parents of the child. There were so few cases of any other relationship that a comparison of different relationships to the client would not be meaningful.

In the Contemporary Control condition, the Black and Spanish ethnic groups had a case completion rate of 11% within the time limits mentioned previously; whereas, the White group had only a 2% rate. In the Contemporary Experimental condition, the Black ethnic group had 46% the Spanish, 32%, and the White, 37% case completion within the time limits. There were only eight cases which were completed within the previously mentioned time limits in the Historical condition. This number is too small to feel that any independent variable other than the sample condition had an effect on rate of case completion.

Null Hypothesis No. 4 in the Hypotheses section was

rejected. There does appear to be a difference in the probabilities of cases being completed within the time limits stated previously (Table 12). A chi square was performed to examine the relationship of the three sample conditions to the rate of case completion within the time frame. The chi square test of independence led to a rejection of the null hypothesis at the .001 level of significance. This lends strong support to the working hypothesis that there is a relationship between case monitoring and rate of case completion within the time frame of 60 days from request to screening and 60 days from screening to first treatment.

TABLE 12  
CASE COMPLETION RATE BY SAMPLE CONDITION

| Case Completion        | SAMPLE CONDITION          |      |                      |      |                    |      |
|------------------------|---------------------------|------|----------------------|------|--------------------|------|
|                        | Contemporary Experimental |      | Contemporary Control |      | Historical Control |      |
|                        | N                         | %    | N                    | %    | N                  | %    |
| Within Time Limits     | 905                       | 39   | 107                  | 10   | 8                  | 3    |
| Not Within Time Limits | 1409                      | 61   | 952                  | 88   | 234                | 97   |
| Missing                | 0                         | 0    | 17                   | 2    | 0                  | 0    |
| TOTAL*                 | 2314                      | 100% | 1076                 | 100% | 242                | 100% |

\*Previously screened cases were not figured in the totals; however previously screened cases requesting treatment were added to the total of those needing treatment for the Experimental condition

$$\chi^2_{(2)} = 381.42, p < .001$$

The effectiveness of case management on service outcomes is shown in Table 13. Case management is two times more effective in getting a case to screening and four times more effective in getting a case completed.

TABLE 13  
SERVICE OUTCOMES  
CASE MANAGEMENT EFFECTIVENESS

|                                                    | FLORIDA SYSTEM | PROJECT        |
|----------------------------------------------------|----------------|----------------|
| 1. SAMPLE SIZE                                     | 1222           | 2552           |
| 2. SAMPLE SIZE MINUS<br><u>PREVIOUSLY SCREENED</u> | 1076           | 2285           |
| 3. SCREENING RATE                                  | 31%            | 67%            |
| 4. CASE COMPLETION RATE                            | 48% (Screened) | 89% (Screened) |
|                                                    | 15% (Total)    | 59% (Total)    |

Screening and case compliance with Federal regulations were considered separately. If a case worker was not able to have a client screened within 60 days from request for screening, the case did not meet screening compliance. If however, missing screening compliance automatically meant failing case compliance, a case worker would have no incentive to continue follow-up for treatment or screening. A list of outcomes for screening and case compliances and non-compliances follows:

#### SCREENING OUTCOMES

##### Compliance

Refused<sup>3</sup>  
 Moved or Lost Eligibility<sup>3</sup>  
 Previously Screened  
 Screened within 60 days from referral

##### Non-Compliance

Missed three appointments<sup>3</sup>  
 Can not locate<sup>3</sup>  
 Screened over 60 days

#### CASE OUTCOMES

##### Compliance

Refused<sup>3</sup>  
 Moved and Lost Eligibility<sup>3</sup>  
 Previously Screened  
 Negative Screens  
 Positive Screens who obtained  
 treatment within 60 days  
 from screening.

##### Non-Compliance

Missed three appointments<sup>3</sup>  
 Can not locate<sup>3</sup>  
 Positive screens who  
 obtained treatment after  
 60 days from screening.

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<sup>3</sup> These outcomes are all screening or treatment not completed for the Contemporary Control and Historical Groups. The State at present, does not have these various categories. Consequently, these two groups might have slightly lower compliance figures than they would if these categories were available for analysis.



In the Experimental condition, 64% met the screening compliance regulations (Table 14). Additionally, another 20% were screened after 60 days. Of those cases screened, 67% were screened within 60 days.

TABLE 14  
SCREENING COMPLIANCE RATE BY SAMPLE CONDITION

| Screening Compliance * | SAMPLE CONDITION          |      |                      |      |                    |      |
|------------------------|---------------------------|------|----------------------|------|--------------------|------|
|                        | Contemporary Experimental |      | Contemporary Control |      | Historical Control |      |
|                        | N                         | %    | N                    | %    | N                  | %    |
| Compliance             | 1619                      | 64   | 358                  | 29   | 59                 | 21   |
| Non-Compliance         | 925                       | 36   | 852                  | 69   | 227                | 79   |
| Missing                | 8                         | 0    | 12                   | 2    | 0                  | 0    |
| TOTAL                  | 2552                      | 100% | 1222                 | 100% | 286                | 100% |

\* For the Experimental Condition, screening compliance includes cases which refused services, moved or lost eligibility, were previously screened, or were screened within 60 days from request for screening. For the Control Conditions, previously screened or screened within 60 days from request were included in the screening compliance. The other categories were not distinguishable from not screened and are in the non-compliance category. This may reflect a slightly lower compliance rate for the Control conditions.

In the Contemporary Control condition only 29% and in the Historical Control condition only 21% were in screening compliance. However, one must remember that some of the cases who were counted in the screening non-compliance figures, may have been cases which refused services, moved

or lost eligibility in the Control conditions.

In the Experimental condition, 74% met the case compliance regulations. Again, considering the limitation of the State's data, 24% were in case compliance for the Contemporary Control condition and 27% for the Historical Control conditions (Table 15).

TABLE 15  
CASE COMPLIANCE RATE BY SAMPLE CONDITION

| Case<br>Compliance* | SAMPLE CONDITION             |      |                         |      |                       |      |
|---------------------|------------------------------|------|-------------------------|------|-----------------------|------|
|                     | Contemporary<br>Experimental |      | Contemporary<br>Control |      | Historical<br>Control |      |
|                     | N                            | %    | N                       | %    | N                     | %    |
| Compliance          | 1878                         | 74   | 297                     | 24   | 78                    | 27   |
| Non-Compliance      | 674                          | 26   | 901                     | 74   | 208                   | 73   |
| Missing             | 0                            | 0    | 24                      | 2    | 0                     | 0    |
| TOTAL               | 2552                         | 100% | 1222                    | 100% | 286                   | 100% |

\* For the Experimental Group, case compliance includes cases which refused services, moved or lost eligibility, were previously screened, negative screens, and positive screens which were treated within 60 days of screening. For the Control Groups, case compliance includes cases which were previously screened, negative screens, and positive screens which were treated within 60 days of screening. The other categories were not distinguishable from not screened or treated and are in the non-compliance category. This may reflect a slightly lower compliance rate for the Control Groups.

### Cost Analysis

Various interviews were held with social workers who were assigned to three Aid to Families with Dependent Children (AFDC) units of SES. During the period of time, 17 July 1979 through 26 July 1978, social workers assigned to the above service units were contacted. Each of the units served approximately the same number of clients, at a different geographical location.

The indicated contacts were scheduled in an informal manner to obtain information which would allow a cost analysis of SES case management operations related to E.P.S.D.T.<sup>4</sup> The purpose indicated is not aimed at a process evaluation of SES; but rather, at providing information pertinent to the demonstration project in evaluating its own operations.

To accomplish this purpose the following questions were asked of each worker contacted (see Figure 5).

1. Number of social workers (SW) and number of assistant social workers (ASW) in each unit.
2. Whether social workers or assistant social workers are assigned E.P.S.D.T. related duties.
3. An estimate of the portion of the total work-time devoted to E.P.S.D.T. [E.(% of E.P.S.D.T.)]. The estimate is presented as a percentage of the total work-time by the worker.

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<sup>4</sup> AFDC service units are assigned various client-service duties, one of which is E.P.S.D.T. Case Management.

4. An estimate (percentage) representing the number of E.P.S.D.T. referrals not originated by the assistance payment worker: (E%NR)<sup>5</sup>. Information on these cases is not submitted to the E.P.S.D.T. Demonstration Project, by the SES service units.

| UNIT   | S.W. | A.S.W. | E(%EPSDT) | E(%NR EPSDT) | TRANS |
|--------|------|--------|-----------|--------------|-------|
| 1      | 4    | 4      | 75%       | 10%          | NO    |
| 2      | 4    | 3      | 90%       | 10%          | NO    |
| 3      | 3    | 2      | 60%       | 20%          | NO    |
| TOTALS | 11   | 9      | 75%       | 13%          | NO    |

Figure 5. Presentation of data by unit. (The large type indicates whether SW or ASW handled E.P.S.D.T. TRANS indicates whether they arranged transportation for their clients).

Total requests for E.P.S.D.T. services received from these three units for Fiscal Year 1977-1978 was 4,691. Of these cases, 601 were sampled by the Project leaving a total of 4,090 cases handled by SES. The estimate of 13% representing the number of E.P.S.D.T. referrals not originated by the assistant payment workers was added to the totals to give a grand total of 4,622 cases handled by the three SES units during the Fiscal Year 1977-1978.

<sup>5</sup> Non-Project related.

In addition, the latest information on the starting salary of a social worker (\$367.20 bi-weekly) and the starting salary of an assistant social worker (\$271.23 - 4% bi-weekly) was obtained from the SES regional office.

To obtain employee cost, the SW's were converted to assistant social worker equivalents (ASWE).

This was accomplished by obtaining a ratio of the two salaries. ASW is equivalent to 1 1/3 ASWE's. The number of ASWE's was then multiplied by the "estimated" percentage of total work-time devoted to E.P.S.D.T. [E(% E.P.S.D.T.)] to obtain the number of social worker assistant equivalents (SWAE) (see Figure 6).

| UNIT  | S.W. | A.S.W. | A.S.W.E. | E(%EPSDT) | SWAE 100% EPSDT |
|-------|------|--------|----------|-----------|-----------------|
| 1     | 4    | 4      | 4        | 75%       | 3               |
| 2     | 4    | 3      | 3        | 90%       | 2.7             |
| 3     | 3    | 2      | 4        | 60%       | 2.4             |
| TOTAL |      |        |          | 75%       | 8               |

Figure 6. Presentation of data by unit indicating the number of social worker equivalents (SWAE). (The large type indicates whether SW or ASW handled E.P.S.D.T.)

As seen in Figure 6, there were eight SWAE's to handle 4,622 requests for E.P.S.D.T. To obtain cost per case the

following formula was utilized:

$$8 \text{ hrs} \times 5 \text{ days} \times 52 \text{ weeks} \times 8 \text{ SWAE} = 16,640 \text{ hours}$$

$$\frac{16,640 \text{ hours}}{4,622 \text{ cases}} = 3.6 \text{ hours per case} \times \$3.26 \text{ per hour} = \$11.74 \text{ cost per case}$$

The figure of \$11.74 cost per case includes all cases, whether screened or not, treated or not. The percentage of those who received screening from the Project's Contemporary Control Group was used to obtain the employee cost for cases which were screened (see Appendix IV).

This was done by:

$$88\% \times 4,622 = 4,067 \text{ cases in need}$$

$$31\% \times 4,067 = 1,261 \text{ cases receiving screening}$$

$$\frac{16,640 \text{ hours}}{1,261 \text{ cases}} = 13.2 \text{ hours per case} \times \$3.26 \text{ per hour} = 43.01 \text{ per screen}$$

The same method was utilized to obtain cost per case completion; which is \$89.22. Thus the estimated cost for Social and Economic Services of Florida to provide service is:

\$12.00 per request for E.P.S.D.T.

\$43.00 per case screened

\$89.00 per case completion

From the Dynamic Control printouts of the Experimental Case Monitor Performance Report - Case Management Hours, the average case management hours to close a case (\$4.45) was obtained (see Appendix VI). A case monitor works 2,080 hours per year. These hours (2,080), divided by the hours to close a case (4.45), is 467 cases a year for which a case monitor could provide service.

By applying the same formula used in figuring the

SES costs per case, per screen, per case completion; the case costs for the Project were:

\$14.00 per request  
\$24.00 per cases screened  
\$27.00 per case completions

The Project also examined the direct service cost between a random sample of cases from the Experimental and Contemporary Control Group. There was no substantial difference in direct service cost between the two groups.

Even with support from the Project's case monitors, some clients still failed to keep their medical appointments. This led to low utilization of available health care services. Earlier studies (Glosgow, 1970; Hertz, 1977; Hurtado, 1973; and Schroeder, 1973) attempted to explain this low utilization as a function of organizational variables such as insufficient referral systems and overscheduling of medical appointments. Those variables are called organizational variables because they are under the control of the medical provider. Other studies (Kirscht, 1976; Mechanic, 1978; Rosenstock, 1975) focused on non-organizational variables such as obtaining dental check-ups and other health maintenance behaviors. These variables are under the control of the client.

A special study was undertaken by Project staff. Through interviews with fifty-one health decision makers, a staff member investigated the effect of organizational and non-organizational variables on appointment keeping behavior.

Three organizational variables under investigation were 1) the subject's knowledge of available preventative medical services, 2) situational barriers, and 3) subject's perceived adequacy of the appointment keeping assistance. The relationship of each of these variables' effect with appointment-keeping behavior proved not to be statistically significant. Two non-organizational variables examined were (1) subject's participation in health behavior and (2) an "illness index" (a measure of whether illness prompted the request for services). Of these five variables, only the relationship of participation in health behavior with appointment keeping was found statistically significant; however, that relationship accounted for only 11% of the variance.

From the Project's results, case monitoring appears to double the probability of a case getting screened over procedures currently employed by the State of Florida. It more than doubles the probability that screening will occur within 60 days from request for E.P.S.D.T. Case monitoring improves the probability for having a case showing up for treatment within 60 days from screening completion. That improves the probability of a problem being resolved within 120 days from the date of screening completion. Case monitoring improves the probability, fourfold, of having a case completed. Case monitoring is three times more likely



to have a case meet screening compliance and case compliance. The Project cost per request is three dollars more than the estimated cost for Social and Economic Services of Florida to provide services. However, the cost is nearly half as much for each case screened and less than one third the cost for each case completion (Table 16).

TABLE 16  
COST COMPARISONS

|                        | FLORIDA SYSTEM | PROJECT |
|------------------------|----------------|---------|
| 1. Per Request         | \$ 12          | \$ 14   |
| 2. Per Case Screened   | \$ 43          | \$ 24   |
| 3. Per Case Completion | \$ 89          | \$ 27   |

Much of the success of the case monitors was a result of the Management Information System (MIS). The monitors used it daily, similar to using an update inventory

system. The MIS provided a daily report with a list of cases which had appointments on a specific day and noted whether transportation was required. It also provided a list of tomorrow's appointments and transportation scheduling. This permitted the monitor to make certain that the clients were reminded of their appointments and to schedule transportation if needed. A daily report was provided which showed the clients who had past due appointments that had not been followed-up by the case monitor. This reminded the case monitor to contact the health provider or screening clinic and find out the results of the previous appointment. Also, it reminded the worker to schedule the next appointment or close the case. The last daily report contained a list of clients who had no scheduled screening or treatment appointments. These were the cases which could fall through the system. Therefore, this report was used to remind the worker to make necessary appointments for the client.

The MIS also provided weekly hard copy to the monitors as well as Project staff. These reports helped the case monitor to keep track of her clients and make notations upon the computer printouts. The weekly, monthly, and quarterly reports for the staff enabled them to perceive which case monitors were having trouble. This enabled the case monitor to lessen her case load if necessary, or do whatever was possible to help the monitor. The reports

also gave a success rate for each case monitor and for the Project as a whole, as well as providing a cost to close a case. The reason for closing a case i.e., positive screen, refused services, moved or lost eligibility were entered into the MIS.

#### Problems Identified by the Demonstration Project

The Demonstration Project was mainly concerned with children and their access to health care services. Emphasis was placed on obtaining services for the children. For instance, several non-parent guardians spoke to people at the Project about not being able to secure non-emergency medical services for the children in their custody -- they were not legally guardians, even though they were receiving an AFDC check for these children. The Project consulted with four juvenile judges and an attorney. An "authorization" to sign for medical treatment petition was developed and adopted by the courts (Appendix III). Instructions were given to all SES workers, and since the petition's implementation, over 30 children received medical assistance.

Another problem encountered by all of the HRS case workers was trying to locate families in order to inform the health decision maker of the medical services available. A case monitor would try and call families or even make home visits. However, they occasionally found this was to no avail because the client had moved without notifying anyone.

The county health departments seem to be their own worst enemies as a result of the methods they use for scheduling appointments. The reason for this is two-fold. First, in Dade County, the health department is responsible for providing health care services to children and their families who cannot afford to pay for it. This, of course, includes all children on AFDC benefits. Because the numbers are too large and the health decision maker has many factors to contend with, a certain percentage of children do not show for appointments. Therefore, the health department over-books appointments. If per chance a large percentage of these children do show, then it may take hours to be seen by a physician. Because of this over-scheduling, a child often will not be able to see the physician and so another appointment will be given (unless, of course, the treatment needed is of an immediate nature). The Project is against extreme overscheduling of appointments by county health departments or of lengthy time lapses between appointments. These situations can cause clients to think their appointments are unimportant and unnecessary.

The other problem the health departments have is that of poor organization. Health departments are notorious for this. It is difficult to get information because staff is always at a minimum. Clients have an even more difficult time. The Project found that records were often lost or

misplaced and thus the case monitors were at a loss for vital information.

There also were problems with transportation. The first of these was the chronic tardiness of transportation providers. This was remedied in most cases by simply ordering the transportation with at least a fifteen minute allowance for tardiness. Another problem was the plethora of forms necessary when transportation was needed in an emergency. Neither the Department of Health and Rehabilitative Services, nor the particular transportation provider would place an emergency order without going through the entire process. Often the client was kept waiting, and more often than not, was caused to miss the appointment entirely. This was especially disturbing because the health decision maker who showed interest in getting the necessary medical treatment for her children was deprived of the ability to do so.

Of all the problems encountered, the hardest to correct was the one involving reimbursement to the Medicaid providers. This problem presented many difficulties to the Project's staff, the providers, the clients and the System Development Corporation (SDC) whose responsibility it was to review and make payments.

This often affected the Project staff because they were directly caught in the cross-fire between the doctor's complaints about lack of payment and SDC's inability to

reimburse them in a timely manner. The client, although not directly caught in the middle, certainly suffered because of the friction. Often a provider would flatly refuse to continue the client's treatment unless payment was received. This left the client without care for his or her health care problem, and disgust toward the doctor, the State, and the case worker. This resulted in an added expense to everyone due to the need for re-evaluation by another physician and the resultant extended treatment for even a minor problem.

One problem the Project was able to have impact upon was the shortage of Medicaid providers which existed in various health areas in Dade County. As a result, the Project was involved in actively recruiting new providers for the Florida Medicaid system. During the second year alone, 27 new providers were recruited to furnish health care services previously unavailable to E.P.S.D.T. eligible children.

Project staff experienced some difficulty with certain Medicaid providers regarding rescheduling of appointments. Because they were rendering services for Medicaid eligibles at reduced rates, some providers refused to reschedule appointments for those clients who had previously failed to show up for a scheduled examination. The Project therefore made an effort to identify clients who repeatedly missed appointments and to discuss with them

the importance of good appointment-keeping behavior. The Project also attempted to convince physicians to reschedule appointments. This method proved successful in most cases; in those instances in which it failed, another service provider was procured to attend to that client.

Throughout the first two years of its operation, the Project encountered numerous Medicaid eligible clients who failed to keep screening and treatment appointments because they did not understand the importance of E.P.S.D.T. services. It was felt, therefore, that case monitors could benefit from communication and effectiveness training to improve their interpersonal skills. An ad hoc committee of the Advisory Council was formed to deal with this problem.

With the appearance of several cases of child abuse and/or neglect in the E.P.S.D.T. Project caseload, Project staff met with HRS personnel to gain a clearer understanding of State laws and regulations regarding child abuse. Because cases of abuse and/or neglect should be brought to the attention of the police, it was determined that active participation on the part of the Project was necessary in order to learn how these cases could be handled most effectively and be successful.

During the second quarter of the 1977/1978 fiscal year, child abuse workshops were developed by HRS personnel in conjunction with the Metropolitan Dade County Police

Department. The purpose of these workshops was to train social workers and police officers in handling child abuse/neglect cases. Three workshops were planned: the first workshop included 40-50 officers from 5 units of the Metro Dade County Public Safety Department, the second workshop was designed for social workers, and the third included all those who participated in the first two sessions to enable them to share experiences and discuss further any other difficulties that may have arisen.

#### Summary

The improvement of service delivery to Medicaid eligible children was successfully accomplished through an innovative and client focused management package which reflected a 70 per cent reduction in successful case resolution costs. These results have garnered national recognition with the Dade County E.P.S.D.T. Demonstration Project serving as a laboratory for the development of health and social service program improvements. The Project owes its success to simplicity of format, minimization of forms, absence of data duplication, as well as the collection and use of data primarily for the delivery of services to the client. Not only did the system prove beneficial in the delivery of health care services, but also illustrates its potential application in other government programs and private industry such as Juvenile Justice and Hospital Patient Management System.



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## MANAGEMENT INFORMATION SYSTEM

### INTRODUCTION

A management information system (MIS) is an organized method of recording, storing and retrieving information. Many systems utilize a computer as a central processing unit to facilitate this task. The types and uses of information processed by an MIS vary, and may include one or more of the following: management, planning, operations, evaluation and others.

The management information system presented in this report was developed to support the Dade County E.P.S.D.T. Demonstration Project. The primary function of this system is to provide the Project's Case Monitoring Component with management and evaluation data.

The Project's MIS is designed to meet management needs in three areas. First, it contains identification (age, sex, race, etc.) and contact (address, phone number, etc.) information on each client. Second, it serves as a "tracking system" of clients through the E.P.S.D.T. system. And third, it provides periodic output reports which are used both by field staff in serving clients and by management personnel in the supervision of field staff.

In terms of evaluation, the MIS provides monthly output reports which contain interim evaluation data. It also serves as a data source for the Project's annual evaluation. In addition, the case "tracking system" is linked to a computerized time accounting system. This linkage allows for an automated calculation of the per-case cost of providing case monitoring services. Finally, the MIS has the capability (with minor modifications) of monitoring State compliance to Federal E.P.S.D.T. regulations.

After the Project's first year of operations, it was determined that the MIS was in need of several modifications. The three objectives of these modifications were: (a) to reduce the amount of computer storage space required for each case record; (b) to streamline the process of data collection and entry; and (c) to increase the system's management capabilities.

Negotiations for these modifications were initiated with the computer contractor in November of 1977. By the end of May 1978, the modifications were completed and the revised system became operational.

The overview presented in this report includes the most recent revisions of the Dade County E.P.S.D.T. Demonstration Project's Management Information System. The paper is divided into four major sections, each corresponding to a particular MIS function/operation. Client and contact

Information presents the types and sources of client data. Case Tracking describes the MIS's capability of documenting each client's progress through the E.P.S.D.T. system. Case Monitor Time Accounting illustrates the procedures used in accounting for case worker time. The Computer Output Reports describe system output (both hard copy and video) and how it serves the function of management and evaluation. Each of these sections contains (where appropriate) copies for forms used for data collection and illustrative representations of computer displays and/or output reports.

#### CLIENT AND CONTACT INFORMATION

The first data type to be collected for new cases is client and contact information. Within eight working hours after a client has been selected for inclusion in the Project's experimental group, a Project case worker visits the client's SES Unit and reviews his/her payment's record. Appropriate information is abstracted from this record onto a Project Registration Form. One registration form is completed for each E.P.S.D.T. eligible child on the client's grant. A sample registration form is illustrated on page 86.

Not all the information required to complete the registration form is contained within the payment's record. It is necessary to obtain some information directly from the client. This is done during the initial client intake interview, a routine home visit during which the client is

E.P.S.D.T. DEMONSTRATION PROJECT  
REGISTRATION FORM

1 FAMILY: HDM

MEDICAID NO.

0 1 2 1 8 7 6

1. INITIAL ☒

2. UPDATE ☐

DATE OF REGISTRATION

0 5 2 0 7 8

NAME SCOTT, JOAN R.

last first mi.

DATE OF BIRTH SEX

0 1 2 5 5 2 M

ADDRESS 1350 NW 12 AVE.

no. street apt#

MIAMI, FL. 33125

city state zip

MIAMI

place of birth

PHONE

3 2 5 2 9 8 4

ETHNIC GROUP

1

PAYMENTS UNIT

1 4

ETHNICITY CODE

1 1

SERVICE UNIT

3 5

\*EDUCATION (YRS) \* 1 2

CASE MONITOR SALLY SMITH 1 0

CHILDREN

NAME

MEMBER NO.

DATE OF BIRTH

RELATIONSHIP

last first mi.

TO HDM

SCOTT, BILLY

1 0 0

1 2 1 5 7 0

1

SCOTT, PEGGY

1 1 0

0 8 2 1 7 2

2

SAMPLE FORM 1

This is a sample registration form.  
Fictitious data have been supplied  
for demonstration purposes.

2 CHILD

MEDICAID NO.

0 1 2 1 8 7 6 1 0 0

DATE OF REGISTRATION

0 5 2 0 7 8

SEX

M

NAME SCOTT, BILLY

last first mi.

MIAMI

place of birth

REFERRAL DATE

0 5 1 5 7 8

ETHNIC GROUP

1

ETHNICITY CODE

1 1

\*PREVIOUS SOURCES OF MEDICAL\*  
CARE C.H.C.P.

\*SCHOOL\* MIAMI ELEM.

0 2 4

\*SCHOOL INTERVENTION\* ☒ ☐  
yes no

given an overview of the E.P.S.D.T. system and scheduled for a screening appointment (if he/she indicates a willingness to participate). Although the client intake interview is usually completed within eight working hours after the visit to the payments unit, computer entry of the registration form is not delayed in lieu of completing the interview. Rather, the registration form is a two page NCR (non carbon reproduction); and as soon as all payment's record information has been placed on the form, the bottom page is detached for immediate computer entry. The top page of the form is used by the field worker during the intake interview. Any missing registration form information is completed during this interview and then entered into the computer in the form of a data base update.

A format which is identical to the Project Registration form has been established within the computer and is titled Display 1 and Display 2. Computer Display 1 (family display) corresponds to the top section of the registration form (the section pertaining to the family and the health decision maker (HDM). Computer Display 2 (the child display) corresponds to the bottom section of the registration form (the child section. One family display (Display 1) is entered and stored in the computer per family. Linked internally within the computer to the family display is a separate child display for each child in the family, including the HDM if he/she is also an E.P.S.D.T. eligible.

Computer storage of Displays 1 and 2 is of an "on-line type", i.e., any display can be recalled and viewed (on one of the Project's remote entry terminals) whenever the need arises. Storage and recall for each display is keyed to the child's 10-digit Medicaid number.

Included within Displays 1 and 2 are: the family's address and phone number; the date E.P.S.D.T. services were requested by the family; and the age, sex and ethnic background of the HDM and of each E.P.S.D.T. eligible child. Additionally, a system has been established whereby any change (such as a change in address or phone) can be immediately incorporated into the data base.

#### CASE TRACKING

In very simple terms, a child's progression (i.e., a child given case monitoring by the Project) through the E.P.S.D.T. system may be stated as follows: within a few days after E.P.S.D.T. services are requested by a family, they are visited by a case worker who explains E.P.S.D.T. services and schedules a screening appointment for the children. The day before the appointment comes due, the case worker contacts the family to remind them of the screening appointment and schedules transportation to deliver them to the clinic (if the family indicates the need). That same day, the case worker calls the clinic to obtain the screening

results and interprets them to the family. Children with medical/dental/other problems identified at screening have a treatment appointment scheduled for them by their case worker (with the treatment provider of the family's choice). Each problem is carefully monitored by the case worker (appointments are scheduled, and transportation and appointment reminders are provided, etc.) until treatment for all problems has been completed. After all problems have been resolved or after a negative screening result (i.e., no medical/dental/other problems were detected) a case is considered completed.

A primary function of the MIS is to serve as a tracking system of clients through this E.P.S.D.T. system. Each time that a case worker schedules a screening or treatment appointment, schedules transportation, or obtains screening or treatment results, it is documented on a Project Transaction Form. Normally, all transactions which a case worker performs during a working day can be placed on a single form. This form is turned in at the day's end, at which time it is entered into the computer by a data clerk. The result is a computerized case record which is never more than eight hours out of date. A copy of a transaction form follows.



## E.P.S.D.T. DEMONSTRATION PROJECT

## TRANSACTION FORM

SMITH, SALLY 10

CASE MONITOR

DATE 06-20-78

| MEDICAID #                                                                                              | NAME<br>last, first | DISPLAY | DATA                                                                  | SCREENING/<br>PROBLEM STATUS                        | COMPUTER<br>ENTRY |
|---------------------------------------------------------------------------------------------------------|---------------------|---------|-----------------------------------------------------------------------|-----------------------------------------------------|-------------------|
| Q106765-110                                                                                             | DOE, JOHN           | 10      | Scheduled @ 4:00 PM @ 12:30<br>Screening: 7-20-78<br>Scheduled @ 7:30 |                                                     |                   |
| 1106765-110                                                                                             | GONZALEZ, PEDRO     | 10      | TAXI: 7-24-78 TO CT. UNIT                                             |                                                     |                   |
| 1415678-110                                                                                             | SMITH, Willie       | 10      | Showed 6-20-78 56ST RMC<br>Scheduled @ 10:00 AM                       | POSITIVE SCREENING<br>V. SUPPL. (29)<br>DENTAL (20) |                   |
| Q106765-130                                                                                             | BROWN, JEAN         | 20      | TREATMENT: 7-10-78 DR. JONES<br>Scheduled @ 8:30 AM                   |                                                     |                   |
| 1186702-100                                                                                             | GARCIA, MARIA       | 25      | TAXI 7-6-78 DR. AUGUSTA                                               |                                                     |                   |
| Q106789-020                                                                                             | JACKSON, BETTY      | 40      | Showed 6-20-78 DR. RODRIGUEZ                                          | NEXT APPT.<br>7-10-78 @ 2:00                        |                   |
| Q207657-100                                                                                             | DELGADO, Miguel     | 20      | Showed 6-20-78 DR. JONES                                              | TREATMENT COMPLETE<br>CLOSE CASE                    |                   |
| SAMPLE FORM 2                                                                                           |                     |         |                                                                       |                                                     |                   |
| This is a sample transaction form.<br>Fictitious data have been supplied<br>for demonstration purposes. |                     |         |                                                                       |                                                     |                   |

REV 1277

There are three types of computer displays onto which transaction form data are entered. They are the screening Display, the Problem Display, and the Post Completion Treatment (PCT) Display.

There is a separate Screening Display for each child registered in the computer and, like Displays 1 and 2, it is retrieved via the child's ten-digit Medicaid number. The Screening Display is composed of a Case Summary Section at

the top and a Screening Appointment Section at the bottom. The Case Summary Section gives an overview of the case's progression through the E.P.S.D.T. system: it lists the screening date, site and outcome; any medical/dental/other problems which were identified for the case, and whether each problem has been resolved; and whether the case is open (still in the E.P.S.D.T. System). Data in the Screening Appointment Section include appointment: date, time site and outcome (whether kept cancelled or missed). An illustration of the Screening Display and definitions of the variables contained therein are listed below and on next page.

E.P.S.D.T. CASE SCREENING DISPLAY

MEDICAID # 0106752-110

NAME DOE, JANE E.

-----CASE SUMMARY-----

DATE SHOWN - SCREENING 010178

SITE 02 46TH ST. CLINIC

SCREENING STATUS 06 POSITIVE SCREEN

# PROBLEMS IDENTIFIED 2

PROBLEMS OPEN 20 25

SCREENING COMPL. DATE 010178

PROBLEMS CLOSED

CASE COMPL. DATE

PCT PROBLEMS

CLOSED-COMPUTER

CASE STATUS OPEN

-----SCREENING APPOINTMENT DATA-----

| APPT. | DATE MADE             | APPT. DATE | TIME | TRANS |
|-------|-----------------------|------------|------|-------|
| 1     | 010178                | 010178     | 1200 | N     |
|       | SITE 02 46 ST. CLINIC |            |      |       |
| 2     | DATE MADE             | APPT. DATE | TIME | TRANS |
|       | SITE                  |            |      |       |
| 3     | DATE MADE             |            | TIME | TRANS |
|       | SITE                  |            |      |       |
| 4     | DATE MADE             |            | TIME | TRANS |
|       | SITE                  |            |      |       |
| 5     | DATE MADE             | APPT. DATE | TIME | TRANS |
|       | SITE                  |            |      |       |

SAMPLE 1

This is a reproduction of the computerized screening display. Fictitious data have been supplied for demonstration purposes.

CASE SCREENING DISPLAY

Definitions for the variables contained on the screening display.

| VARIABLE                      | DEFINITION                                                                                                                                                                                       |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DATE SHOWED - SCREENING       | Date child first showed for screening                                                                                                                                                            |
| SCREENING STATUS              | Leave blank if not yet screened; enter appropriate code (see Screening Status Codes) to record screening results.                                                                                |
| NUMBER OF PROBLEMS IDENTIFIED | INTERNAL                                                                                                                                                                                         |
| SCREENING COMPLETION DATE     | Date of kept screening appointment when all screening is completed                                                                                                                               |
| PROBLEMS OPEN                 | INTERNAL                                                                                                                                                                                         |
| PROBLEMS RESOLVED             | INTERNAL                                                                                                                                                                                         |
| POT PROBLEMS                  | INTERNAL                                                                                                                                                                                         |
| CASE COMPLETION DATE          | Date on T-Form when case is closed, unless otherwise specified                                                                                                                                   |
| CASE STATUS                   | INTERNAL                                                                                                                                                                                         |
| DATE CLOSED IN COMPUTER       | INTERNAL                                                                                                                                                                                         |
| DATE MADE                     | Date of Transaction Form when screening appointment was scheduled by Case Monitor; or date that HDM notified our office that she had scheduled the appointment (without our monitoring services) |
| APPOINTMENT DATE              | Date of screening appointment                                                                                                                                                                    |
| SITE                          | Location of screening appointment (see codes)                                                                                                                                                    |
| TIME                          | Time of screening appointment                                                                                                                                                                    |
| TRANSPORTATION                | Was transportation scheduled (Y/N) Code N if unknown                                                                                                                                             |
| COMPLETION CODE               | Use to record the appointment outcome (see Screening Completion Codes)                                                                                                                           |

Although each child has only one screening display, he/she may have several Problem Displays. Separate Problem Displays are initiated for each medical/dental/other problem for the child. A child's Problem Displays are retrieved via the child's ten digit Medicaid number plus the problem's code number. The problem code number is a two-digit number (from 20 to 99) which corresponds to the State of Florida Department of Health and Rehabilitative Services' medical problem codes.

Like the Screening Display, the Problem Display is divided into two sections, a Problem Summary Section and a Problem Appointment Section. The Problem Summary Section includes: the date the problem was identified; whether it was identified at E.P.S.D.T. screening; the problem status (not yet treated, still under treatment, or treatment completed); and the problem resolution date (date treatment was completed). In the Problem Appointment Section, there is space to record treatment appointment information (appointment date, treatment provider, time and outcome) for seven appointments on the first "page" of the display. Additional "pages" for recording treatment appointments are available if needed. An illustration of the problem display and definitions of the variables contained therein are listed below and on next page.

E.P.S.D.T. PROBLEM DISPLAY

MEDICAID # 1171860-100

NAME PEREZ, JUAN

PROBLEM 71 PHIMOSIS

DATE PROBLEM IDENTIFIED 041178  
IDENTIFIED AT SCREENING y  
PROBLEM RESOLUTION DATE 050178

STATUS 12 TREATMENT COMPLETED

| -----PROBLEM APPOINTMENT DATA----- |                                 |                                                                                                                                     |                    |         |       |
|------------------------------------|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------|-------|
| APPT. 1                            | DATE MADE 041178                | APPT. DATE 041578                                                                                                                   | TIME 1000          | TRANS Y |       |
|                                    | PROVIDER 411276 VALDEZ, JOSE MD |                                                                                                                                     | COMPL. CODE 1 KEPT |         |       |
| APPT. 2                            | DATE MADE 041578                | APPT. DATE 050178                                                                                                                   | TIME 0915          | TRANS Y |       |
|                                    | PROVIDER 411276 VALDEZ, JOSE MD |                                                                                                                                     | COMPL. CODE 1 KEPT |         |       |
| APPT. 3                            | DATE MADE                       | APPT. DATE                                                                                                                          | TIME               | TRANS   |       |
|                                    | PROVIDER                        |                                                                                                                                     | COMPL. CODE        |         |       |
| APPT. 4                            | DATE MADE                       |                                                                                                                                     |                    | TRANS   |       |
|                                    | PROVIDER                        | <u>SAMPLE 2</u>                                                                                                                     | MPL. CODE          |         |       |
| APPT. 5                            | DATE MADE                       | This is a reproduction of the<br>computerized problem display.<br>Fictitious Data have been supplied<br>for demonstration purposes. |                    |         | TRANS |
|                                    | PROVIDER                        |                                                                                                                                     | MPL. CODE          |         |       |

CASE PROBLEM MAINTENANCE

(Definition for each variable)

| VARIABLE                        | DEFINITION                                                                                                                                                                                                                                                                                    |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DATE PROBLEM IDENTIFIED         | If identified at screening, the date of screening appt. when it was identified; if identified at tmt, date of tmt appt when problem was discovered. For cases that are previously screened and in need of tmt, use date on transaction form when E.P.S.D.T. is first notified of the problem. |
| PROBLEM IDENTIFIED AT SCREENING | Check to see if problem listed here is the same as the problem on TP. (Y/N) Code Y if identified at screening, otherwise Code N.                                                                                                                                                              |
| PROBLEM STATUS                  | Leave blank if not yet treated; enter appropriate code (see Problem Status Codes) to record the results of each kept tmt appointment or whenever the status of the problem changes                                                                                                            |
| PROBLEM RESOLUTION DATE         | Date of tmt appointment when problem is resolved; or date of last contact with family, if treatment was not completed (PROBLEM STATUS cannot be 00 or 09)                                                                                                                                     |
| PAGE #                          | Use page #1 for the first seven appointments scheduled; if an eighth appointment is needed, page #2 will automatically appear showing space for another seven appointments.                                                                                                                   |
| DATE MADE                       | Date on T-Form when appointment was scheduled                                                                                                                                                                                                                                                 |
| APPOINTMENT DATE                | Date of treatment appointment                                                                                                                                                                                                                                                                 |
| PROVIDER                        | Provider's (Doctor) Medicaid Number (see Provider Codes)                                                                                                                                                                                                                                      |
| TIME                            | Time of treatment appointment                                                                                                                                                                                                                                                                 |
| TRANSPORTATION                  | Was transportation scheduled (Y/N) Code N if unknown                                                                                                                                                                                                                                          |
| COMPLETION CODE                 | Use to record the appointment outcome (see Problem Completion Codes)                                                                                                                                                                                                                          |

The Post Completion Treatment (PCT) Display is nearly identical to the Problem Display but is used under different circumstances. If a medical/dental/ other problem is identified for a child after the child's case has been completed (for an explanation of case completion see page 89), treatment data for that problem are entered onto the PCT Display, rather than only a Problem Display. The difference is that the PCT Display provides a mechanism for tracking the problem, but does not alter the data collected for regular E.P.S.D.T. services. A copy of the PCT Display follows.

E.P.S.D.T. POST COMPLETION TREATMENT DISPLAY

MEDICAID : 0106789-100

NAME JONES, JACK

PROBLEM 39 IMPETIGO

DATE PROBLEM IDENTIFIED 051578

-----PROBLEM APPOINTMENT DATA-----

|         |                                 |                                                                                                                                                                                                                 |                    |             |
|---------|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-------------|
| APPT. 1 | DATE MADE 051578                | APPT. DATE 051678                                                                                                                                                                                               | TIME 0900          | TRANS Y     |
|         | PROVIDER 573691 HART, BURTON MD |                                                                                                                                                                                                                 | COMPL. CODE 1 KEPT |             |
| APPT. 2 | DATE MADE 051678                | APPT. DATE 052678                                                                                                                                                                                               | TIME 0815          | TRANS Y     |
|         | PROVIDER 573691 HART, BURTON MD |                                                                                                                                                                                                                 | COMPL. CODE 1 KEPT |             |
| APPT. 3 | DATE MADE 052678                | APPT. DATE 071578                                                                                                                                                                                               | TIME 0800          | TRANS N     |
|         | PROVIDER 573691 HART, BURTON MD |                                                                                                                                                                                                                 | COMPL. CODE 0 OPEN |             |
| APPT. 4 | DATE MADE                       | APPT. DATE                                                                                                                                                                                                      | TIME               | TRANS       |
|         | PROVIDER                        | SAMPLE 3                                                                                                                                                                                                        |                    | COMPL. CODE |
| APPT. 5 | DATE MADE                       | <div style="border: 1px solid black; padding: 5px;"> <p>This is a reproduction of the computerized post completion treatment display. Fictitious data have been supplied for demonstration purposes.</p> </div> |                    | TRANS       |
|         | PROVIDER                        |                                                                                                                                                                                                                 |                    | COMPL. CODE |
| APPT. 6 | DATE MADE                       |                                                                                                                                                                                                                 |                    | TRANS       |
|         | PROVIDER                        |                                                                                                                                                                                                                 |                    | COMPL. CODE |
| APPT. 7 | DATE MADE                       | APPT. DATE                                                                                                                                                                                                      | TIME               | TRANS       |
|         | PROVIDER                        |                                                                                                                                                                                                                 |                    | COMPL. CODE |

All Screening, Problem and PCT Displays for each child are linked within the computer via the child's Medicaid number. These displays are maintained in "on-line" storage, a feature which allows them to be viewed at any time that the need arises. Thus, the MIS provides an individual client tracking record which is current and readily accessible. However, the management capability of this system is not limited to providing individualized case records. Additionally, the MIS aids the case worker by providing daily a list of clients in specified (key) categories which aids in providing

services to clients. A more detailed description of this function of the MIS is presented in the Computer Output Reports Section, page 100.

#### CASE MONITOR TIME ACCOUNTING

Case worker time accounting is achieved through the use of a Case Monitor Daily Time Summary Sheet. One time summary sheet is completed by each case monitor per working day. Computer entry is performed daily by the data clerk by transposing the data from the sheets onto an identically formatted computerized display.

When completing the time summary sheet, the case worker divides the hours worked for the day among eight major activity categories. The computer summarizes the time spent on each category by case monitor, and for all case monitors combined, and reports it in the form of a monthly time summary report. Using this time summary data, the amount of case worker time spent per case is calculated by dividing the number of cases completed per unit time by the total number of hours spent in case management during the same time period. The dividend yields the mean number of case worker hours spent per case, a figure which is easily converted into a cost-per-case value.

Copies of the Case Monitor Daily Time Summary Sheet and a definition for the eight major activity categories

follow. A copy of the computerized monthly time summary report also follows.

E.P.S.D.T. DEMONSTRATION PROJECT  
CASE MONITOR DAILY TIME SUMMARY SHEET

Spritz Sally 7/0  
CASE MONITOR

DATE 06 20 78

| <u>MAJOR ACTIVITY</u>                                   | <u>TIME WORKED TODAY</u> |                |
|---------------------------------------------------------|--------------------------|----------------|
|                                                         | <u>HOURS</u>             | <u>MINUTES</u> |
| Case Management (Experimental Only)                     | <u>6</u>                 | <u>30</u>      |
| Training (including briefings and staff meetings) ..... | <u>      </u>            | <u>30</u>      |
| Historical Control .....                                | <u>      </u>            | <u>      </u>  |
| Contemporary Control .....                              | <u>      </u>            | <u>      </u>  |
| Developmental Case Support Services .....               | <u>      </u>            | <u>      </u>  |
| Personal (including breaks) .....                       | <u>      </u>            | <u>45</u>      |
| Administrative .....                                    | <u>      </u>            | <u>15</u>      |
| Other specify .....                                     | <u>      </u>            | <u>      </u>  |
| .....                                                   | <u>      </u>            | <u>      </u>  |
| TOTAL TIME WORKED TODAY .....                           | <u>8</u>                 | <u>00</u>      |

SAMPLE FORM 2

Fictitious data have been supplied here for demonstration purposes.

DEFINITIONS OF THE MAJOR ACTIVITIES ON THE CASE MONITOR DAILY TIME SUMMARY SHEET.

1. Case Management - All time spent in the processing or servicing of experimental group cases including: getting information from APRs; educating clients; no contact visits; appointment scheduling; getting and giving information to experimental group clients; obtaining appointment results; scheduling transportation; completing transaction forms; discussing cases with data clerks; and checking on school intervention.



2. Training - All time spent on learning new techniques, in weekly staff meetings and in daily briefings.
3. Historical Control - All time spent in the processing of historical control clients including: completing the control group data forms; looking up data in Ms. Rierra's office; and interviewing historical control clients and providers.
4. Contemporary Control - All time spent in the processing of contemporary control clients including: getting information from APRs; completing the control group data forms; checking the printout of Dade County Medicaid eligibles; looking up data in Ms. Rierra's office, and interviewing contemporary control clients and their providers.
5. Developmental Case Support Services - All time spent working with children in the developmental screening component including: scheduling diagnostic appointments for them with Dr. Pinnas, Dr. Seligman or Dr. Crown; and checking with the parents of the children with possible learning handicaps to determine if they want their child identified to the school.
6. Personal - All time spent on personal activities including breaks, time spent in personal conversations and telephone calls, and any time spent out of the office on non-project business such as doctor appointments.
7. Administrative - Time spent doing daily time sheets and other non-case related paperwork, and time spent picking up forms from service units or printouts from Dynamic Control.
8. Other - Specify the time spent in activities which do not fit into one of the seven foregoing categories.

## E.P.S.D.T.

MONTHLY TIME SUMMARY FOR THE MONTH OF    CASE MONITOR   First Last

| MAJOR ACTIVITY                              | TOTAL TIME<br>REPORTED FOR<br>THIS MONTH | TOTAL DAYS<br>WORKED THIS<br>MONTH* | MEAN NUMBER<br>OF HOURS WORKED<br>PER DAY** | % OF TOTAL<br>TIME WORKED<br>THIS MONTH |
|---------------------------------------------|------------------------------------------|-------------------------------------|---------------------------------------------|-----------------------------------------|
| Case Management.....                        | _____                                    | _____                               | _____                                       | _____                                   |
| Training.....                               | _____                                    | _____                               | _____                                       | _____                                   |
| Historical Control.....                     | _____                                    | _____                               | _____                                       | _____                                   |
| Contemporary Control.....                   | _____                                    | _____                               | _____                                       | _____                                   |
| Developmental Case<br>Support Services..... | _____                                    | _____                               | _____                                       | _____                                   |
| Personal.....                               | _____                                    | _____                               | _____                                       | _____                                   |
| Administrative.....                         | _____                                    | _____                               | _____                                       | _____                                   |
| Other.....                                  | _____                                    | _____                               | _____                                       | _____                                   |
| Total.....                                  | _____                                    | _____                               | _____                                       | _____                                   |

\* Total hours worked this month divided by 8 hours per day.

\*\* Total time reported for the month for each activity divided by total days worked this month.

COMPUTER OUTPUT REPORTS

Computer output reports are obtained periodically from the MIS and are designed to meet at least one of three basic purposes: management, interim evaluation, or data verification. In order to explain how the output reports meet these functions, specific examples are given.

The Case Monitor Sign-In Report shown below provides an excellent example of a management function provided by the MIS.

CASE MONITOR SIGN-IN REPORTS

EP500  $\Delta$  CMR (ENTER)

.....

GOOD MORNING! PLEASE INDICATE YOUR CASE MONITOR CODE AND  
SIGN-IN BELOW:

CASE MONITOR CODE ☐☐ YOUR NAME \_\_\_\_\_

YOUR FOUR CASE MANAGEMENT REPORTS ARE READY FOR YOUR REVIEW.  
EACH TIME THAT YOU PRESS ENTER, A NEW REPORT WILL APPEAR UNTIL  
ALL HAVE BEEN SHOWN. PLEASE TAKE TIME TO REVIEW ALL FOUR REPORTS.

PLEASE PRESS ENTER TO VIEW YOUR FIRST REPORT. THANK YOU AND  
HAVE A NICE DAY.

This report serves two basic management needs. One, it acts as a management aid to the case worker in providing E.P.S.D.T. services to her clients and two, it provides data which facilitate in the supervision of the case worker. The report meets these needs in the following fashion.

When a case worker arrives at work in the morning she "signs in" on the computer. The computer responds by recording her sign-in time (which is issued to her supervisor in the form of a weekly report) and sending her a series of four video reports dealing with her client case load. Report one lists the names and selected appointment data for all of her clients which have a screening or treatment appointment scheduled for that day.

## E.P.S.D.T. DEMONSTRATION PROJECT

Appointments scheduled for today ☐ ☐ ☐ By Case Monitor ☐ Name

| Medicaid #     | Child's Name | Display (i.e., Screening or List Problem) | Time of Appt. | Provider/Site Name | Transportation Scheduled? |
|----------------|--------------|-------------------------------------------|---------------|--------------------|---------------------------|
| List Cases     |              |                                           |               |                    |                           |
| .              |              |                                           |               |                    |                           |
| .              |              |                                           |               |                    |                           |
| .              |              |                                           |               |                    |                           |
| V              |              |                                           |               |                    |                           |
| List PCT Cases |              |                                           |               |                    |                           |
| .              |              |                                           |               |                    |                           |
| .              |              |                                           |               |                    |                           |
| .              |              |                                           |               |                    |                           |
| V              |              |                                           |               |                    |                           |

Report two lists all of her cases with appointments scheduled for the next day.

Appointments scheduled for tomorrow ☐ ☐ ☐ By Case Monitor ☐ Name

| Medicaid #                    | Child's Name | Display (i.e., Screening or List Problem) | Time of Appt. | Provider/Site Name | Transportation Scheduled? |
|-------------------------------|--------------|-------------------------------------------|---------------|--------------------|---------------------------|
| List Cases<br>.<br>.<br>V     |              |                                           |               |                    |                           |
| List PCT Cases<br>.<br>.<br>V |              |                                           |               |                    |                           |

The third report lists all clients with past due appointments for which the worker has not obtained the appointment results.

#### E.P.S.D.T. DEMONSTRATION PROJECT

PAST DUE APPOINTMENTS WHICH HAVE NOT BEEN FOLLOWED-UP ON (No Appointment Status): CASE MONITOR ☐ name

| Medicaid # | Child's Name | Display (i.e., screening or list problem) | Provider/Site Name | Appointment Date |
|------------|--------------|-------------------------------------------|--------------------|------------------|
| List Cases |              |                                           |                    |                  |

And report four lists all of the worker's clients who need a screening or treatment appointment scheduled for them.

OPEN CASES WITH NO OUTSTANDING SCREENING OR TREATMENT APPOINTMENTS<sup>1</sup> : CASE MONITOR ☐ name

| Medicaid # | Child's Name | Display (ie, screening or list problem) | Date of last Appointment | Number of Days Since Reg. Date |
|------------|--------------|-----------------------------------------|--------------------------|--------------------------------|
| List Cases |              |                                         |                          |                                |

<sup>1</sup> Cases must be open at least 10 days after registration date before they appear on this printout.

Thus, the Case Monitor Sign-In Report aids the case worker in providing E.P.S.D.T. services by identifying:

(a) clients who must be reminded of an upcoming appointment and who may be in need of transportation (reports one and two); (b) screening and treatment appointments for which she must determine the outcome (report three); and (c) clients which need to be scheduled for screening or treatment (report four). The same report facilitates in the supervision of the case worker by: (a) listing each case monitor's sign-in time; (b) indicating the number of appointments

scheduled by each case worker (reports one and two); (c) and indicating when a case worker has been lax in determining appointment results or in scheduling new appointments (reports three and four).

One source of interim evaluation data for the Project is the Case Monitor Performance Report. This is a monthly report which lists (for each case monitor individually, and for the Project as a whole) the total number and proportion of clients of clients who were screened within 60 days of requesting E.P.S.D.T. services, and the number and proportion of clients who received follow-up treatment (when needed).

## E. P. S. D. T.

## EXPERIMENTAL CASE MONITOR PERFORMANCE REPORT

FOR THE MONTH OF \_\_\_\_\_

CASE MONITOR ☐ FIRST ☐ LAST-----  
CASE LOAD

| CASELOAD CATEGORY                 | THIS MONTH | PROJECT TO DATE |
|-----------------------------------|------------|-----------------|
| Number of New Cases <sup>1</sup>  |            |                 |
| Number of Cases Completed         |            |                 |
| Mean Active Caseload <sup>2</sup> |            | xxx             |

<sup>1</sup>including open cases reassigned to a new case monitor

<sup>2</sup>calculated as follows:  $\frac{\sum (\text{active case load on each working day of the month})}{(\text{Number of working days in the month})}$

Also contained in this report is a program which calculates the mean number of case worker hours required to service a case. In essence, the case monitor performance report serves interim evaluation needs by providing a periodic index of the quality and quantity of work performed by the Project.

An example of a report which which is useful for data verification is the Case Monitor Weekly Time Summary shown. This report is a listing of all time data which were entered into the computer for the week. It serves data verification by providing an opportunity to detect errors that were made during data entry, and to correct them, before they affect the monthly time summary report.

## E.P.S.D.T.

WEEKLY TIME SUMMARY FOR THE WEEK ENDING ☐☐☐CASE MONITOR ☐☐ first last

|                                             | mo / day  | mo / day  | mo / day  | mo / day  | mo / day  | TOTAL     | % of total<br>time worked<br>this week |
|---------------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|----------------------------------------|
| MAJOR ACTIVITY                              | hrs / min | hrs / min | hrs / min | hrs / min | hrs / min | hrs / min |                                        |
| Case Management.....                        | —         | —         | —         | —         | —         | —         | —                                      |
| Training.....                               | —         | —         | —         | —         | —         | —         | —                                      |
| Historical Control.....                     | —         | —         | —         | —         | —         | —         | —                                      |
| Contemporary Control.....                   | —         | —         | —         | —         | —         | —         | —                                      |
| Developmental Case<br>Support Services..... | —         | —         | —         | —         | —         | —         | —                                      |
| Personal.....                               | —         | —         | —         | —         | —         | —         | —                                      |
| Administrative.....                         | —         | —         | —         | —         | —         | —         | —                                      |
| Other.....                                  | —         | —         | —         | —         | —         | —         | —                                      |
| TOTAL.....                                  | —         | —         | —         | —         | —         | —         | —                                      |

In addition to those already mentioned as examples, there are many other output reports which serve management, interim evaluation and data verification needs. A complete listing of these reports, including report title, the frequency at which it is obtained, the function that it serves, and a brief description of its content, follows. A copy of each report format follows the listing.

LIST OF  
E.P.S.D.T. PROJECT OUTPUT REPORTS

| REPORT TITLE                              | FREQUENCY | FUNCTION                        | CONTENT                                                                                                                                                                                                                                                        |
|-------------------------------------------|-----------|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| OPEN APPOINTMENTS                         | Weekly    | Management                      | Lists cases with past and future open appointments for each case worker. The Health Decision Maker's name, the treatment or screening provider, the problem category, whether transportation was provided, and the appointment data are listed for each case.* |
| CASES WITH MISSING REGISTRATION FORM DATA | Monthly   | Management<br>Data Verification | Lists all cases with missing data on displays 1 and 2 for each case monitor. The date of registration and missing variables are listed in the report.*                                                                                                         |
| CASES WITH INCOMPLETE PROBLEMS            | Weekly    | Management                      | Lists cases with unresolved problems for each case monitor. The problem category (code #), problem status, date problem was identified, number of days since the date of registration, and the provider's name are given for each case.*                       |
| CASES COMPLETED THIS WEEK                 | Weekly    | Management                      | Lists all cases completed for the week for each case monitor. The case completion code and date of completion are given for each case.*                                                                                                                        |
| PROJECT CASELOAD                          | Monthly   | Management<br>Data Verification | List of all Project cases alphabetically by: child's last name; Health Decision Maker's last name; and chronologically by "edicaid #."                                                                                                                         |



## LIST OF E.P.S.D.T. PROJECT OUTPUT REPORTS (CONTINUED)

| REPORT TITLE                                 | FREQUENCY | FUNCTION              | CONTENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------------|-----------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DATA VERIFICATION - NEW CASES                | Weekly    | Date Verification     | List all new cases added to the data base for the week. HDM's date of birth, ethnic group and date of registration, and child's date of birth are given.*                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| CASE MONITOR WEEKLY TIME SUMMARY             | Weekly    | Date Verification     | Lists time data entered for each case monitor for the week. Includes the total number of hours and the percent of total time worked in each of the major activity categories.                                                                                                                                                                                                                                                                                                                                                                                                                            |
| CASE MONITOR MONTHLY TIME SUMMARY            | Monthly   | Evelution Management  | Lists for each case monitor separately, and for all case monitors combined - the total number and percentage of hours worked for the month, and the mean number of hours worked per day, by major activity category.                                                                                                                                                                                                                                                                                                                                                                                     |
| CASE MONITOR SIGN-IN REPORTS                 | Daily     | Management            | Computer routine consisting of a morning sign-in, which is followed by a computer presentation (for each case monitor) of the following four video displays: (1) clients with screening or treatment appointments for today; (2) clients with screening or treatment appointments for tomorrow; (3) clients with a past due appointment which has not been followed up on; (4) clients who need to be scheduled for screening or treatment. Any of these reports can also be accessed individually at any time during the day.* Also included is a hard copy report of each case monitor's sign-in time. |
| CASES AWAITING ACTION                        | Weekly    | Management            | Lists by case monitor all cases which need a screening or treatment appointment scheduled for them. HDM, date of last appointment, and the number of days since the registration date are provided for each case. Also, space is provided for the case monitor to comment on the case.*                                                                                                                                                                                                                                                                                                                  |
| EXPERIMENTAL CASE MONITOR PERFORMANCE REPORT | Monthly   | Evaluation Management | Comprehensive listing of the work performed by each case monitor individually and for the Project as a whole. Report categories include: screening (number of cases screened and screening outcomes); treatment (number of problems treated and problem outcomes); and case completion.* Also included is a report which calculates the mean number of case worker hours required for case completion.                                                                                                                                                                                                   |

\*Child's name and medicaid number are also included.

E. P. S. D. T.

DATE 

OPEN APPOINTMENTS

PAGE

CASE MONITOR 

| REGISTRATION # | CHILD'S NAME | HEALTH REGISTRATION NUMBER | PROVIDER      | PROB | LAST | FIRST | INITIAL  |
|----------------|--------------|----------------------------|---------------|------|------|-------|----------|
| List Cases     |              |                            |               |      |      |       |          |
| Example:       |              |                            |               |      |      |       |          |
| 1234567-890    | DOE, JOHNNIE | DOE, JOHN                  | HEALTH CENTER | 01   | N    |       | 01/01/75 |

E.P.S.D.T. CASES WITH MISSING REGISTRATION  
FORM DATA FOR THE MONTH ENDING --

CASE MONITOR 

NAME

## DATA MISSING ON DISPLAY 1

| MEDICAID # | MDM's NAME  | REGISTRATION DATE | MISSING VARIABLES  |
|------------|-------------|-------------------|--------------------|
| List Cases |             |                   |                    |
| Example:   |             |                   |                    |
| 1234560    | Smith, Jane | 030978            | Sex, Date of Birth |

## DATA MISSING ON DISPLAY 2

| EDICAID #   | CHILD'S NAME | REGISTRATION DATE | MISSING VARIABLES |
|-------------|--------------|-------------------|-------------------|
| List Cases  |              |                   |                   |
| Example:    |              |                   |                   |
| 0102375-100 | Joe, John    | 022878            | School            |

\*NOTE: Cases which have been on file for 10 days or less will not appear on this printout. Cases with missing background data will appear on this printout for two consecutive months only, after which time they will no longer be included on the printout.

E. P. S. D. T.

DATE 

CASES WITH INCOMPLETE PROBLEMS

PAGE

CASE MONITOR 

| MEDICAID #      | CHILD'S NAME | PROB # | PROB RES. STATUS | DATE PROB IDENT | APPTMT MADE | APPTMT DATE | PROVIDER   | PROVIDER PHONE |
|-----------------|--------------|--------|------------------|-----------------|-------------|-------------|------------|----------------|
| List Cases<br>↓ |              |        |                  |                 |             |             |            |                |
| Example:        |              |        |                  |                 |             |             |            |                |
| 1234567 890     | DOE, JOHNNIE | 01     | 00-OPEN          | 01/01/80        | 01/01/80    | 01/01/80    | SYD, J. MD | 1234567        |

E. P. S. D. T.

DATE 

CASES COMPLETED THIS WEEK

PAGE

 - CASE MONITOR

| MEDICAID #      | CHILD'S NAME | COMPLETION STATUS | REGISTRATION DATE | COMPLETION DATE | DAYS TO CLOSE |
|-----------------|--------------|-------------------|-------------------|-----------------|---------------|
| List Cases<br>↓ |              |                   |                   |                 |               |
| Example:        |              |                   |                   |                 |               |
| 1234567 890     | DOE, JOHNNIE | NEGATIVE SCREEN   | 1/01/80           | 1/01/80         | 28            |

E. P. S. D. T.

DATE \_\_\_\_\_

PROJECT CASE LOAD

PAGE

| MEDICAID #                                         | CHILD'S NAME | HEALTH DECISION MAKER | GROUP | REG. DATE |
|----------------------------------------------------|--------------|-----------------------|-------|-----------|
| List Cases<br><br>↓<br>Example:<br><br>1234567 890 | DOE, JOHNNIE | DOE, JOHN             | E     | 1/01/80   |

E. P. S. D. T.

DATE \_\_\_\_\_

DATA VERIFICATION - NEW CASES

PAGE

| FAMILY #                                       | HEALTH DECISION MAKER | D.O.B. | EXPERIMENTAL<br>CONDITION | ETHNIC<br>GROUP | REGISTRATION<br>DATE | MEMBER<br>NUMBER | CHILD'S NAME | D. O. B. |
|------------------------------------------------|-----------------------|--------|---------------------------|-----------------|----------------------|------------------|--------------|----------|
| List Cases<br><br>↓<br>Example:<br><br>1234567 | DOE, JOHN             | 8/8/80 | 1-EXPERIMENTAL            | 2-SPANISH       | 1/01/80              | 100              | DOE, JANE    | 1/02/80  |

E.P.S.D.T.

WEEKLY TIME SUMMARY FOR THE WEEK ENDING   CASE MONITOR   first last

| <u>MAJOR ACTIVITY</u>                       | mo / day  | mo / day  | mo / day  | mo / day  | mo / day  | TOTAL     | % of total<br>time worked<br>this week |
|---------------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|----------------------------------------|
|                                             | hrs / min | hrs / min | hrs / min | hrs / min | hrs / min | hrs / min |                                        |
| Case Management.....                        | ___       | ___       | ___       | ___       | ___       | ___       | ___                                    |
| Training.....                               | ___       | ___       | ___       | ___       | ___       | ___       | ___                                    |
| Historical Control.....                     | ___       | ___       | ___       | ___       | ___       | ___       | ___                                    |
| Contemporary Control.....                   | ___       | ___       | ___       | ___       | ___       | ___       | ___                                    |
| Developmental Case<br>Support Services..... | ___       | ___       | ___       | ___       | ___       | ___       | ___                                    |
| Personal.....                               | ___       | ___       | ___       | ___       | ___       | ___       | ___                                    |
| Administrative.....                         | ___       | ___       | ___       | ___       | ___       | ___       | ___                                    |
| Other.....                                  | ___       | ___       | ___       | ___       | ___       | ___       | ___                                    |
| TOTAL.....                                  | ___       | ___       | ___       | ___       | ___       | ___       | ___                                    |

E.P.S.D.T.

MONTHLY TIME SUMMARY FOR THE MONTH OF   CASE MONITOR   First Last

| <u>MAJOR ACTIVITY</u>                       | <u>TOTAL TIME<br/>REPORTED FOR<br/>THE MONTH</u> | <u>TOTAL DAYS<br/>WORKED THIS<br/>MONTH*</u> | <u>MEAN NUMBER<br/>OF HOURS WORKED<br/>PER DAY**</u> | <u>% OF TOTAL<br/>TIME WORKED<br/>THIS MONTH</u> |
|---------------------------------------------|--------------------------------------------------|----------------------------------------------|------------------------------------------------------|--------------------------------------------------|
| Case Management.....                        | _____                                            | _____                                        | _____                                                | _____                                            |
| Training.....                               | _____                                            | _____                                        | _____                                                | _____                                            |
| Historical Control.....                     | _____                                            | _____                                        | _____                                                | _____                                            |
| Contemporary Control.....                   | _____                                            | _____                                        | _____                                                | _____                                            |
| Developmental Case<br>Support Services..... | _____                                            | _____                                        | _____                                                | _____                                            |
| Personal.....                               | _____                                            | _____                                        | _____                                                | _____                                            |
| Administrative.....                         | _____                                            | _____                                        | _____                                                | _____                                            |
| Other.....                                  | _____                                            | _____                                        | _____                                                | _____                                            |
| Total.....                                  | _____                                            | _____                                        | _____                                                | _____                                            |

\* Total hours worked this month divided by 8 hours per day.

\*\* Total time reported for the month for each activity divided by total days worked this month.

CASE MONITOR SIGN-IN REPORTSEP500  $\Delta$  CMR (ENTER)

.....

GOOD MORNING! PLEASE INDICATE YOUR CASE MONITOR CODE AND  
SIGN-IN BELOW:

CASE MONITOR CODE ☐☐ YOUR NAME \_\_\_\_\_

YOUR FOUR CASE MANAGEMENT REPORTS ARE READY FOR YOUR REVIEW.  
EACH TIME THAT YOU PRESS ENTER, A NEW REPORT WILL APPEAR UNTIL  
ALL HAVE BEEN SHOWN. PLEASE TAKE TIME TO REVIEW ALL FOUR REPORTS.

PLEASE PRESS ENTER TO VIEW YOUR FIRST REPORT. THANK YOU AND  
HAVE A NICE DAY.

E.P.S.D.T. DEMONSTRATION PROJECTAppointments scheduled for today ☐☐☐ By Case Monitor ☐ Name \_\_\_\_\_

| Medicaid #                            | Child's Name | Display (i.e., Screen-<br>ing or List Problem) | Time of Appt. | Provider/Site<br>Name | Transportation<br>Scheduled? |
|---------------------------------------|--------------|------------------------------------------------|---------------|-----------------------|------------------------------|
| List Cases<br>.<br>.<br>.<br>V        |              |                                                |               |                       |                              |
| List PCT<br>Cases<br>.<br>.<br>.<br>V |              |                                                |               |                       |                              |

Appointments scheduled for tomorrow ☐☐☐ By Case Monitor ☐ Name \_\_\_\_\_

| Medicaid #                            | Child's Name | Display (i.e., Screen-<br>ing or List Problem) | Time of Appt. | Provider/Site<br>Name | Transportation<br>Scheduled? |
|---------------------------------------|--------------|------------------------------------------------|---------------|-----------------------|------------------------------|
| List Cases<br>.<br>.<br>.<br>V        |              |                                                |               |                       |                              |
| List PCT<br>Cases<br>.<br>.<br>.<br>V |              |                                                |               |                       |                              |

## E.P.S.D.T. DEMONSTRATION PROJECT

PAST DUE APPOINTMENTS WHICH HAVE NOT BEEN FOLLOWED-UP ON (No Appointment Status): CASE MONITOR ☐ name

| Medicaid # | Child's Name | Display (i.e., screening or list problem) | Provider/Site Name | Appointment Date |
|------------|--------------|-------------------------------------------|--------------------|------------------|
| List Cases |              |                                           |                    |                  |

OPEN CASES WITH NO OUTSTANDING SCREENING OR TREATMENT APPOINTMENTS<sup>1</sup> : CASE MONITOR ☐ name

| Medicaid # | Child's Name | Display (ie, screening or list problem) | Date of last Appointment | Number of Days Since Reg. Date |
|------------|--------------|-----------------------------------------|--------------------------|--------------------------------|
| List Cases |              |                                         |                          |                                |

Cases must be open at least 10 days after registration date before they appear on this printout.

CASE MONITOR SIGN IN REPORT

FOR THE WEEK ENDING ☐ ☐ ☐

| DATE                                                                                                                   | TIME | CASE MONITOR CODE AND NAME | SIGNATURE    |
|------------------------------------------------------------------------------------------------------------------------|------|----------------------------|--------------|
| Examples:                                                                                                              |      |                            |              |
| 1-26-78                                                                                                                | 8:00 | 07 Michele P. Varella      | M.P. Varella |
| 1-26-78                                                                                                                | 8:10 | 05 Jewel Williams          | J. Williams  |
| NOTE: In the event that a case monitor is out, another case monitor may sign in for her and review her cases. Example: |      |                            |              |
| 1-27-78                                                                                                                | 8:30 | 12 Carmen Gannon           | L. Osterman  |

CASES AWAITING ACTION  
FOR THE WEEK ENDING ☐ ☐ ☐  
CASE MONITOR ☐ NAME

OPEN CASES WITH NO OUTSTANDING SCREENING OR TREATMENT APPOINTMENTS<sup>1</sup>

| MEDICAID # | CHILD'S NAME | HEALTH DECISION<br>MAKEP | LAST * OF DAYS<br>APPT SINCE REQUIRED?<br>DATE DATE | WRITTEN<br>EXPLANATION<br>BEEN TAKEN ON THIS CASE DURING<br>THIS TIME PERIOD? | CASE<br>MONITOR<br>INITIALS | SECTOR<br>COORDINATOR<br>SIGNATURE |
|------------|--------------|--------------------------|-----------------------------------------------------|-------------------------------------------------------------------------------|-----------------------------|------------------------------------|
|            |              |                          |                                                     | INITIAL                                                                       |                             |                                    |
|            | LIST CASE    |                          |                                                     | YES <input type="checkbox"/><br>NO <input type="checkbox"/>                   |                             |                                    |
|            | LIST CASE    |                          |                                                     | YES <input type="checkbox"/><br>NO <input type="checkbox"/>                   |                             |                                    |
|            | LIST CASE    |                          |                                                     | YES <input type="checkbox"/><br>NO <input type="checkbox"/>                   |                             |                                    |

<sup>1</sup> Cases open less than 10 days after registration date should not appear on this printout.

### CASE MONITOR PERFORMANCE REPORT

E. P. S. D. T.

EXPERIMENTAL CASE MONITOR PERFORMANCE REPORT

FOR THE MONTH OF \_\_\_\_\_

CASE MONITOR ☐ FIRST LAST

### CASE LOAD

| CASELOAD CATEGORY                 | THIS MONTH | PROJECT TO DATE |
|-----------------------------------|------------|-----------------|
| Number of New Cases <sup>1</sup>  |            |                 |
| Number of Cases Completed         |            |                 |
| Mean Active Caseload <sup>2</sup> |            | xxx             |

<sup>1</sup> Including open cases reassigned to a new case monitor

<sup>2</sup> calculated as follows:  $\frac{\sum (\text{active case load on each working day of the month})}{\text{Number of working days in the month}}$



SCREENING

## Summary of Screening Outcomes

| SCREENING OUTCOME              | THIS MONTH |   | PTD |   |
|--------------------------------|------------|---|-----|---|
|                                | N          | % | N   | % |
| Screening Success <sup>1</sup> |            |   |     |   |
| Screening Failure <sup>2</sup> |            |   |     |   |
| Total <sup>3</sup>             |            |   |     |   |

<sup>1</sup> Clients with the following screening status codes are considered screening successes: previously screened, treatment not needed; previously screened, treatment needed; and client's screened within 60 days of their referral dates (both negative and positive screens)

<sup>2</sup> Clients with the following screening status codes are considered screening failures: missed three consecutive appointments; child cannot be located; children screened more than 60 days after their referral date; and children with an open screening status 60 days after their referral date. These children (with an open screening status 60 days after referral date) are counted only once as failures, and they will not be counted as failures during any other requesting period, no matter what their screening status turns out to be.

<sup>3</sup> Clients who refuse services or who moved from area/are no longer eligible will not be included in this table.

SCREENING OUTCOMES

| SCREENING OUTCOME                         | THIS MONTH |   | PROJECT TO DATE |   |
|-------------------------------------------|------------|---|-----------------|---|
|                                           | N          | % | N               | % |
| Refused Services                          |            |   |                 |   |
| Moved From Area/No Longer Eligible        |            |   |                 |   |
| Missed Three Consecutive Appointments     |            |   |                 |   |
| Child Cannot Be Located                   |            |   |                 |   |
| Negative Screen                           |            |   |                 |   |
| Positive Screen                           |            |   |                 |   |
| Previously Screened, treatment needed     |            |   |                 |   |
| Previously Screened, treatment not needed |            |   |                 |   |
| Open 60 days after referral date          |            |   |                 |   |
| TOTAL                                     |            |   |                 |   |

<sup>1</sup>These children will not be counted again during any future reporting periods under screening results, but will be reported under treatment results when appropriate



## PROBLEM RESOLUTIONS

| PROBLEM RESOLUTION                     | THIS MONTH<br>N | PERCENT TO DATE<br>N |
|----------------------------------------|-----------------|----------------------|
| Refused Services                       |                 |                      |
| Moved from Area/No Longer Eligible     |                 |                      |
| Missed their Consecutive Appointments  |                 |                      |
| Child Cannot be Located                |                 |                      |
| No Problem                             |                 |                      |
| Condition Noted, Treatment not Advised |                 |                      |
| Treatment Completed                    |                 |                      |
| TOTAL                                  |                 |                      |

### CASE LISTING BY PROBLEM RESOLUTION

| MEDICID # | CHILD'S NAME | PROBLEM # | PROBLEM | PROBLEM STATUS CODE | NUMBER OF DAYS TO RESOLVE PROBLEM FROM: |                           |
|-----------|--------------|-----------|---------|---------------------|-----------------------------------------|---------------------------|
|           |              |           |         |                     | REGISTRATION DATE                       | DATE PROBLEM WAS RESOLVED |
|           |              |           |         |                     |                                         |                           |

## LIST CASES

U

PROJECT PERFORMANCE REPORT FOR CASE MONITOR COMPONENT

CASE LOAD

| CASELOAD CATEGORY         | THIS MONTH | PROJECT TO DATE |
|---------------------------|------------|-----------------|
| Number of New Cases 1     |            |                 |
| Number of Cases Completed |            |                 |
| Mean Active Caseload 2    |            | xxx             |

<sup>1</sup> Must be calculated independently of case monitor totals

<sup>2</sup> Calculate as follows: 
$$\frac{\sum (\text{Active caseload on each working day of the month})}{\text{Number of working days in the month}}$$

SCREENING

Summary of Screening Outcomes

| SCREENING OUTCOME              | THIS MONTH |   | PTD |   |
|--------------------------------|------------|---|-----|---|
|                                | N          | % | N   | % |
| Screening Success <sup>1</sup> |            |   |     |   |
| Screening Failure <sup>2</sup> |            |   |     |   |
| Total <sup>3</sup>             |            |   |     |   |

<sup>1</sup> Clients with the following screening status codes will be considered screening successes: previously screened, treatment not needed; previously screened, treatment needed; and clients screened within 60 days of their referral dates (both negative and positive screens)

<sup>2</sup> Clients with the following screening status codes will be considered screening failures: missed three consecutive appointments; child cannot be located; children screened more than 60 days after their referral date; and children with an open screening status 60 days after their referral date. These children (with an open screening status 60 days after referral date) will be counted only once as failures, and they will not be counted as failures during any other requesting period, no matter what their screening status turns out to be.

<sup>3</sup> Clients who refuse services or who moved from area/are no longer eligible should not be included in this table.

SCREENING OUTCOMES

| SCREENING OUTCOME                             | THIS MONTH |   | PROJECT TO DATE |   |
|-----------------------------------------------|------------|---|-----------------|---|
|                                               | N          | % | N               | % |
| Refused Services                              |            |   |                 |   |
| Moved From Area/No Longer Eligible            |            |   |                 |   |
| Missed Three Consecutive Appointments         |            |   |                 |   |
| Child Cannot Be Located                       |            |   |                 |   |
| Negative Screen                               |            |   |                 |   |
| Positive Screen                               |            |   |                 |   |
| Previously Screened, treatment needed         |            |   |                 |   |
| Previously Screened, treatment not needed     |            |   |                 |   |
| Open 60 days after referral date <sup>2</sup> |            |   |                 |   |
| TOTAL                                         |            |   |                 |   |

<sup>1</sup>These children will not be counted again during any future reporting periods under screening results, but will be reported under treatment results when appropriate.

CASES WITH PROBLEMS IDENTIFIED

## Index of Problem Load

|                                                         | THIS MONTH | PROJECT TO DATE |
|---------------------------------------------------------|------------|-----------------|
| Number of Problems Identified <sup>1</sup>              |            |                 |
| Number of Clients with Problems Identified <sup>1</sup> |            |                 |
| Number of Problems Resolved                             |            |                 |
| Mean Number of Open Problems <sup>2</sup>               |            | XXX             |

<sup>1</sup>Are calculated independently of case monitor totals.

<sup>2</sup>calculated:  $\frac{\text{Number of open problems on each working day of the month}}{\text{days in the month}} \div (\text{number of work days in the month})$

## Summary of Problem Resolutions

| PROBLEM RESOLUTION   | THIS MONTH |   | PTD |   |
|----------------------|------------|---|-----|---|
|                      | N          | % | N   | % |
| Success <sup>1</sup> |            |   |     |   |
| Failure <sup>2</sup> |            |   |     |   |
| Total <sup>3</sup>   |            |   |     |   |

<sup>1</sup>Problems with the following Problem Resolution Codes are considered successes: No Problem; Condition Noted; Treatment not Advisable; Treatment Completed

<sup>2</sup>Problems with the following problem resolution codes are considered failure: Missed three consecutive appointments; and child cannot be located

<sup>3</sup>Problems with the following resolution codes are considered as neither success nor failures, and will not be counted in the total: Refused Services; and moved from area/ no longer eligible.

## PROBLEM RESOLUTIONS

| PROBLEM RESOLUTION                     | THIS MONTH |   | PERCENT OF TOTAL |   |
|----------------------------------------|------------|---|------------------|---|
|                                        | N          | % | N                | % |
| Refused Services                       |            |   |                  |   |
| Moved from Area/No Longer Eligible     |            |   |                  |   |
| Missed their Consecutive Appointments  |            |   |                  |   |
| Child Cannot be Located                |            |   |                  |   |
| No Problem                             |            |   |                  |   |
| Condition Noted, Treatment not Advised |            |   |                  |   |
| Treatment Completed                    |            |   |                  |   |
| TOTAL                                  |            |   |                  |   |

## SUMMARY OF COMPLETED CASES

| CASE STATUS            | CASES COMPLETED |   |       |   |
|------------------------|-----------------|---|-------|---|
|                        | THIS MONTH      |   | P T D |   |
|                        | N               | % | N     | % |
| Negative Screen        |                 |   |       |   |
| Previous Screen        |                 |   |       |   |
| Treatment Compl.       |                 |   |       |   |
| Missed 3 Appts.        |                 |   |       |   |
| Could not be Located   |                 |   |       |   |
| Refused Services       |                 |   |       |   |
| Moved/Lost eligibility |                 |   |       |   |

## CALCULATION OF THE MEAN NUMBER OF CASE MANAGEMENT HOURS REQUIRED TO CLOSE A CASE

| TIME PERIOD     | (1)<br>hours spent in<br>case management<br>(daily mean)                                                | (2)<br>daily mean active<br>case load                                      | (3)<br>mean hours spent<br>per case per day<br>(col 1 / col 2) | (4)<br>mean number of<br>working days a<br>case was in the<br>system for cases<br>closed:                                                               | (5)<br>mean number of<br>case management<br>hours required<br>to complete a<br>case<br>(col 3 X col 4) |
|-----------------|---------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| this month      | $\Sigma(\text{hours spent in case management this month}) / (\text{number of working days this month})$ | $\Sigma(\text{active case load for X days this month}) / (X \text{ days})$ |                                                                | $\Sigma(\text{number of days from registration to closure for all cases closed this month}) \times (.684) / (\text{number of cases closed this month})$ |                                                                                                        |
| project to date | $\Sigma(\text{hours spent in case management for P-T-D}) / (\text{number of working days for P-T-D})$   | $\Sigma(\text{active case load for X days for P-T-D}) / (X \text{ days})$  |                                                                | $\Sigma(\text{number of days from registration to completion for all closed cases}) \times (.684) / (\text{total number of closed cases for P-T-D})$    |                                                                                                        |

## DEVELOPMENTAL ASSESSMENT

### INTRODUCTION

The practice of screening - the administration of a quick and simple test to a large number of people for the purpose of identifying those of high risk for particular illness - has gained widespread acceptance, particularly among the medical community. Some of the medical screening techniques which are currently in use include the tyne test, the pap test and the breast self-examination. In addition to these medical applications, the screening model is being extended to other areas including that of developmental disabilities (Frankenburg & Dodds, 1967; Ireton & Thwing, 1972; Ireton, et. al, 1971; Colligan & O'Connell, 1974).

The purpose of screening for developmental disabilities is to identify children who have significant deviations in psychological, neurological or emotional development (Cohen, 1976). It is important that these types of problems be identified early in a child's life so that appropriate remediation can be administered. Since developmental disabilities are probably major contributing factors to low self-esteem, poor performance in school, maladjusted social behavior and juvenile delinquency (Adler, 1977;



Faas, 1976); failure to identify and remediate them can result in severe consequences.

According to the U.S. Department of Health, Education and Welfare, the prevalence of developmental disability approaches 17% of the U.S. population (Frankenburg & North, 1974). Unfortunately, the majority of these cases go undetected (Maraville, 1977). For example, in the State of Florida a systematic screening procedure conducted under Federal guidelines (E.P.S.D.T.) is available free of charge for all Medicaid eligible children. Of the 68,172 children receiving this service, during Fiscal Year 1977-1978, only 382, or less than one percent of the total screened were referred for developmental disabilities (Florida Report, 1978). This is in sharp contrast to the prevalence figures estimated by the Department of Health, Education and Welfare. However, these figures included mental retardation, seizures and other neurological problems. Other disabilities such as emotional problems are not even categorized, detected or reported.

Perhaps one reason for this low rate of detection of developmental disabilities is a paucity in the availability of screening techniques which are accurate, inexpensive and can be quickly administered and scored by a paraprofessional. Many of the developmental screening tests which are available violate at least one of these standards. For example, the

accuracy of the Revised Denver Developmental Screening Test (Frankenburg & Dodds, 1967) makes it pre-eminent among screening tools for children under age six. However, the length of time and skill level of the tester required for its administration are prohibitive for its use in many public sector screening situations (Armistead & Crawford, 1974). Other widely accepted developmental screening devices such as the Vane Kindergarten Test (Colligan & O'Connell, 1974), the Gesell Scales (Gesell, 1925) and the Draw-A-Man Test (Ireton, et al, 1971) may be similarly characterized.

If screening for developmental disabilities is to become a routine procedure among public health clinics, it is imperative that accurate screening techniques which can be administered at low cost by paraprofessionals be made more readily available. To this end, the Dade County E.P.S.D.T. Demonstration Project reviewed a number of developmental techniques. The goal was to select two techniques of screening for developmental disabilities which showed the greatest potential of conforming to the afore mentioned standards. After reviewing a number of screening devices, two were selected. An innovative application by the Project of a classical public health screening model (Armistead & Crawford, 1974) was used to validate the two selected developmental screening techniques.

### Statement of the Problem

The purposes of this study were: (a) to evaluate the ability of each of two independent techniques of screening for developmental disabilities to conform to selected accuracy standards for a public health screening device, and, (b) to determine the cost for administering each of the screening techniques.

When administered to a subject, a screening test results in one of two possible outcomes - positive or negative. A positive screening is indicative of a prediction that the patient does in fact have the illness under study. A negative result is indicative of the contrary. Likewise, the diagnostic outcome arrived at by the physician is either positive (indicative that the illness under study is present in the patient), or it is negative (indicative of the contrary). For the purposes of this paper, a diagnostic positive will be referred to as a variant, and a diagnostic negative will be referred to as a non-variant. This is done to emphasize the difference between screening and diagnostic outcomes.

In addition to being inexpensive, simple, quick and acceptable to the patient, a screening test must also be accurate. Accuracy is defined as a screening test's ability to give a true measurement of the item being tested. Since a diagnostic outcome is usually the best available estimator

of this "true measurement", the accuracy of the screening test is usually defined in terms of its ability to predict the diagnostic outcome.

The pairing of screening and diagnostic outcomes for a group of subjects will result in one of four possible classifications. Subjects who have positive screens and variant diagnoses are called true positives. Subjects with positive screens and non-variant diagnoses are called false positives. Subjects with negative screens and non-variant diagnoses are called true negatives. Finally, subjects with negative screens and variant diagnoses are called false negatives.

Evaluating the accuracy of the screening tests involves the calculation of several variables. Armistead & Crawford (1974) have devised formulas for calculating sensitivity, specificity, underreferral, overreferral and phi. The first of these variables to be considered is sensitivity. Sensitivity is the ability of a test to give a positive finding when the person tested truly has the disease under study. Specificity is the ability of a test to give a negative finding when the person tested is free of the disease under study. If a test is perfectly selective, specificity equals 100 percent and sensitivity equals 100 percent (an indication of whether the test results are better than if randomly selected).

Overreferral is defined as the portion of false positives to the total number screened. Underreferral is defined as the portion of false negatives to the total number screened. Thus, these two variables provide an index of the number of false outcomes that might be expected as a result of administering a particular screening test.

While for these two screening techniques, a high overreferral would not be desirable, a high underreferral would negate any advantage a screening test might have. In other words, if many people with disabilities are not detected, the screening test is useless. If many people are detected as having disabilities, who do not have them, the test may still be successful at detecting disabilities; however, it will be costly because too many people will be unnecessarily referred for diagnosis.

Additionally, there is the variable  $\phi$ .  $\phi$  is a correlation coefficient which measures the strength of the relationship between the screening outcome and the diagnostic outcome. It ranges from -1.0, indicating a perfect negative relationship, to +1.0, indicating a perfect positive relationship.

The sensitivity, specificity, underreferral, overreferral and  $\phi$ , all of which are traditionally used in making screening test-reference test comparisons were calculated

for each 4-fold classification table (see Figure 6).

| Screening Test Result | Variant | Reference Test |               | Total |
|-----------------------|---------|----------------|---------------|-------|
|                       |         | Non Variant    |               |       |
| Positive              | a       | b              | a + b         |       |
| Negative              | c       | d              | c + d         |       |
| Total                 | a + c   | b + d          | a + b + c + d |       |

\* Sensitivity =  $a/a + c$ ; Specificity =  $d/b + d$ ; Underreferral =  $c/(a + b + c + d)$ ; Overreferral =  $b/a + b + c + d$ ; Phi =  $(ad - b/c)/(a + b) (c + d) (a + c) (b + d)$ .

Figure 6. Formula for calculating an evaluative profile of a screening from Armistead, L.M. and Crawford, E.E. "An Easy Developmental Screening Test for Public Health Use", American Journal of Public Health, 1974, 64, 243.

There was a limitation in the reliability and validity of the diagnostic results as each child was diagnosed by only one professional. Therefore, two assumptions were made: 1) the diagnostic results were accurate, and 2) the Weschler Intelligence Scale for Children - Revised (Weschler, 1974) is a valid measure of intelligence.

Because of the limitation of time, money, personnel, and the volume of the children which must be served in an E.P.S.D.T. setting, it is necessary that a screening technique for developmental disabilities be inexpensive. Therefore, to fully evaluate both developmental screening techniques, the cost per child of each test was determined.

To analyze the cost of one or more screening techniques to be used by E.P.S.D.T., a paradigm was developed to determine the cost per child for each screening test.

The direct operating cost of screening tests includes royalties, contractual service, purchase of the screening devices, and salaries and fringe benefits of the paraprofessionals required to administer and score the tests.

Costs calculated from these operating figures alone would greatly underestimate the actual cost of an E.P.S.D.T. program. Several other cost components must be considered in estimating total program costs. These indirect costs pertaining to administration and management are appointment making (including follow-up or missed appointments), transportation, reporting, filing and retrieving records, and bill payment. For most E.P.S.D.T. clinics, these indirect costs alone -- not including any medical services -- approach \$5.00 per visit. These indirect costs are best controlled by combining as many screening, diagnosis and treatment functions as possible in the same visit (Frankenburg & North, 1974).

As these indirect costs are constant per visit, each segment of an E.P.S.D.T. visit could be timed. Then a percentage of the indirect cost could be determined for each function, including that of a screening test. That

percentage added to the direct cost would give the total cost per child for a screening technique. However, as these indirect costs are a constant, they are not included in this paradigm. The direct operating cost for this model is figured per child for administering a screening test through a statewide Early and Periodic Screening, Diagnosis and Treatment program.

A personnel work sampling study is conducted by timing, in minutes, test administrations at two locations. For the paradigm these locations should be randomly selected; however, for this study they were selected nonrandomly, as explained in the subject section. For this Project, the personnel work sampling study was performed by timing, in minutes, the scoring of twelve test results.

The following assumptions were made in determining the cost for each screening test:

- 1) There will be a large number of children per screening unit in order to utilize the ZITA/ADT\* machine for eight hours per working day.
- 2) There will be a large number of children per screening unit in order to utilize a para-professional full time - neither cost nor time are included for traveling to smaller screening units.
- 3) Paraprofessionals will have the capability to

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\* Description follows in Instrument section.



give the PSI and ZITA/ADT\*, and would administer only one of the tests.

- 4) A projected number of children is used - more or less could effect the cost per child.

#### METHOD

Two developmental screening tests were independently evaluated on their ability to conform to selected traditional public health screening standards. Subjects for the study were given a diagnostic evaluation for developmental disabilities, and were then screened on each of two independent screening techniques. The outcome of each of the screening tests was compared to the outcome of the diagnostic evaluation.

In order to minimize the effects of one type of systematic variance (i.e., tester effect) the study was done as a double-blind design. Personnel administering the screening devices had no knowledge of the results of the diagnostic evaluation, nor were they aware of the results of the other screening test. Screening personnel also had no collaboration of information on the subject's background (i.e., school performance or other indicators of developmental disabilities) available to them.

#### Unit of Analysis

The unit of analysis was the individual test. This

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\* Description follows in Instrument section.

was evaluated for effectiveness according to its sensitivity, specificity, underreferral, overreferral, and phi coefficient. The test was also evaluated for cost according to variation in length of time to administer and score it (personnel cost) and for all equipment costs including royalties and contractual service.

### Instruments

The PSI is based on a psycholinguistic communications model and includes the major areas of the Illinois Test of Psycholinguistic Abilities (Kirk, et al, 1968). The technique was developed by Dr. Ruth Pinna and her associates at the University of Miami. In an interview format the test seeks to determine if and how the subject child is receiving adequate information from various environmental stimuli which consists of auditory, visual and tactual channels alone or in a combination message. The child receives the stimuli, assimilates them, conceptualizes them and then verbally or tactually expresses what he has conceptualized. In other words, the process includes receptive, associative, and expressive modes. Also essential to the communicative process is the nonverbal or paralinguistic component. An example in the PSI is where the child is asked to point to specific faces (sad, angry and happy) on a card as requested (Appendix V).

Whether the child receives largely the auditory, the visual or the tactual message is not the factor of prime importance. Since it is the total score that is tabulated, a child may receive little in the way of auditory messages and still be regarded as a non-high risk child. He may be receiving largely visual stimuli and his intact modalities may compensate for his deficit areas.

The PSI, in its present use, is for screening purposes to find and help children who are high risk for developmental disabilities. Any screening measure is subject to an element of error but in scoring the PSI, any questionable area is scored in favor of the child. In this instance, in favor of the child means that he will be placed in the high risk category so that he will receive further diagnosis and treatment (Pinna, Note 1).

The ZITA/ADT was developed by Norman K. Walker of Norman K. Walker Associates of Rockville, Maryland (Appendix VI). It is used to detect and assess minimal brain dysfunction (hyperkinesis, hypokinesis, high risk potential, and underarousal). Through the use of the machine, the subject's performance on a simple one-hand tracking task is measured both alone and as affected by a competing response task performed by the other hand (Walker, Note 2).

The Zero Input Tracking Analyzer (ZITA) is an electronic

simulator which presents to the subject a series of standardized tasks, each of which approximates the basic elements of some real-life situation. For example, Task B, the most difficult, relates to acceleration control with lag and corresponds to driving a tractor-trailer on an icy road. Task D, the simplest task, is based on velocity control and parallels driving a fast car on a straight highway. The subject is required to hold a spot of light on a cathode ray tube as closely in the center as possible, using a dual position control stick. Accumulated error is computed after 30 seconds on a digital panel meter, and a permanent record of performance is given on a Rustrak pen recorder (Appendix VI).

The Auxiliary Distraction Task (ADT) is a random series of visual and auditory pulses used in conjunction with the Zero Input Tracking Analyzer. The subjects must respond accurately to the signals by pushing one of two buttons. Errors are scored directly by flashes of light on the scope face, and accumulated errors are indicated on the Rustrak record. When a subject who has learned to manipulate the Zero Input Tracking Analyzer with one hand is asked to respond to the Auxiliary Distraction Task with the other hand, a marked deterioration of Zero Input Tracking Analyzer Performance normally results (Appendix VI), (Evaluation, 1978).

### Subjects

This study was confined to two samples of children in Dade County, Florida. One was drawn from the Comprehensive Health Care Program (CHCP) of the University of Miami Department of Pediatrics, which serves a Medicaid population and the other, through collaboration with the Greater Miami Epilepsy Foundation, Inc., was drawn from a non-Medicaid elementary school population.

There were 192 subjects included in this study. They were children: a) between the ages of 6 and 12 years; b) currently Medicaid eligible, enrolled in the health clinic (CHCP) and present at CHCP on a developmental screening test day with a parent or guardian who consented to the child's participation; or c) were students from the local elementary school who had parental consent letters (Appendix VII).

### Procedures

Five test administrators were used in the study. Two of the administrators, A and B were psychometric technicians with CHCP. The other three were employees of the Dade County E.P.S.D.T. Demonstration Project. All testers had been trained to give the ZITA/ADT and the PSI by the test developers.

### CHCP Procedures

CHCP performed diagnostic evaluations for developmental disabilities of 89 children who met the criteria for inclusion in the study listed in the foregoing. Children who met these criteria and who were available for diagnostic evaluations at a time convenient for CHCP personnel were included in the study (Appendix VI). An interdisciplinary team including psychiatrists, psychologists, and social workers evaluated each subject in the areas of intellectual functioning, learning disabilities and emotional problems based on a one-hour evaluation session held between the subject, his parent (if available) and the psychiatrist.

Each subject was screened on the ZITA/ADT and on the PSI. These screening results, along with the diagnostic Weschler Intelligence Scale for Children - Revised (WISC-R) Wide Range Achievement Test (WRAT), and primary psychiatric observations were done on a random basis and recorded and scored daily. The diagnostic evaluations were also returned to the Project (Appendix VIII). These diagnostic results included:

- 1) The scores achieved by the subjects on the WISC-R (verbal, performance and full scale)
- 2) The scores achieved by the subjects on the WRAT (reading and arithmetic), and

- 3) The presence or absence of diagnosed problems in each of the three study areas (intellectual function, emotional problems and learning disabilities) as determined by the examining psychiatrist.

#### Elementary School Procedures

The 103 children at the elementary school who had parental consent letters were diagnosed by a neuro-behavioral specialist (Appendix VIII) for developmental disabilities using 3 methods:

- 1) Intellectual dysfunction was determined from the fullscale scores of the WISC-R administered by the neuro-behavioral specialist.
- 2) Learning disabilities were determined on the following:
  - a) Significant discrepancy between subject scores,
  - b) More than a two year lag in any specific modality,
  - c) Subjective determination of organically based affective disorder, i.e., hyperactivity, and,
- 3) Emotional problems were determined by the clinical observation and projective assessment during the four to five hours of developmental assessment.

The diagnostic evaluation by the neuro-behavioral specialist and the administration by the Project staff of

the PSI and ZITA/ADT were done in random order. Each child was called out of his/her classroom, taken to the testing room provided by the school, and administered either the PSI, the ZITA/ADT or given the diagnostic evaluation. Both the selection of the child to be tested and the administration order of each test were completely random.

The PSI and ZITA/ADT test forms were returned to the Project the day they were administered.

The PSI test forms were sent to the test developer to be scored. The ZITA/ADT test forms were scored by a trained member of the Project staff.

The diagnostic evaluations were also returned to the Project. These results included:

- 1) The scores achieved by the subjects on the WISC-R (verbal, performance, and full scale, and
- 2) The presence or absence of diagnoseable problems in each of the three study areas (intellectual dysfunction, emotional problems and learning disabilities) as determined by the examining neuro-behavioral specialist.

#### Cost Procedures

The procedures to determine the cost per child for each technique were:

- 1) To time in minutes two paraprofessionals administering



six tests at two locations making a total of two paraprofessionals and twelve test administrators of each test.

- 2) To time in minutes the scoring of twelve test results for each test.
- 3) To obtain annual salary and fringe benefits of a paraprofessional test administrator/clinic aide.
- 4) To obtain the number of children processed annually statewide by E.P.S.D.T.
- 5) Determine the cost and number of Full Time Equivalents (FTE) needed to test the children processed by E.P.S.D.T. statewide.
- 6) To obtain the cost of the equipment, royalties, and contracts, and
- 7) Determine the cost per child for each test by adding the cost of the FTE and equipment cost and dividing that score by the number of children to be screened.

#### Research Design

Screening test results for both the ZITA/ADT and the PSI were classified as either "positive" (indicating test failure) or "negative" according to the scores achieved. This classification was based on normative test data supplied by the test developers, and was age-adjusted for

the ZITA/ADT.

The results of the WISC-R for all subjects were divided into two categories: WISC-R "variants" (i.e., subjects with scores more than two standard deviations below the norm); and WISC-R "non variants" (i.e., subjects with scores not more than two standard deviations below the norm). Results of the reading level test were categorized in a similar fashion: children who scored 3 or more grade levels below their chronological level were classified as reading level "variants"; those who scored above that level were classified as reading level "non variants". Likewise, the results of professional evaluation sessions for all subjects were categorized as: diagnostic "variants" (i.e., subjects diagnosed as having a problem in at least one of the three diagnostic areas of intellectual functioning, learning disability and emotional problems); or diagnostic "non variants" (i.e., subject diagnosed as having no problems in any of these areas).

For purposes of making a comparison between the paired observations of screening outcome and diagnostic outcome, a 4-fold classification table was used (see Table 17). A 4-fold classification table was established for each screening test (PSI and ZITA/ADT) by diagnostic outcome for: the WISC-R; the WRAT for the CHCP sample; and for psychological evaluation.

TABLE 17  
EVALUATIVE PROFILE FOR THE ZITA/ADT SUBSCORE 'SLOW'  
BASED ON THE PERFORMANCE SUBSCORE OF THE WISC-R  
FOR BOTH SAMPLES COMBINED

| SCREENING<br>RESULT | WISC-R PERFORMANCE |             | TOTAL |
|---------------------|--------------------|-------------|-------|
|                     | VARIANT            | NOT VARIANT |       |
| POSITIVE            | 6                  | 20          | 26    |
| NEGATIVE            | 5                  | 159         | 164   |
| TOTAL               | 11                 | 179         | 190   |

Sensitivity = .54

Specificity = .89

Underreferral = .03

Overreferral = .11

Phi = .29

The sensitivity, specificity, underreferral, overreferral, and phi, all of which are traditionally used in making screening test-reference test comparisons, will be calculated for each 4-fold classification table (Armistead & Crawford, 1974). Formulas for calculating each of these variables are shown in Figure 6 on page 127.

In order to determine the cost per child for each screening technique, the following data were collected:

- 1) Personnel time required to administer and score each screening technique.
  - 2) Number of children processed annually statewide by E.P.S.D.T., and
  - 3) Cost of the equipment, royalties and contracts.
- On the basis of the above data, the following were

calculated:

- 1) Number of full-time equivalent (FTE) personnel that will be necessary to test all the children who are annually screened statewide, and
- 2) Number of children who could be tested in one year by one full-time equivalent paraprofessional.

The model depicted in Figure 7 (page 142) was adapted from Blumstein, (1975, pp. 134-135). The components are explained in the paragraphs which follow. The simplicity of this model for determining cost per child makes it adaptable for most screening tests. The formula below summarizes the model in Figure 7 and can be used directly in the calculation of developmental screening cost per child.

$$\frac{\text{PERSONNEL COST} + \text{EQUIPMENT COST}}{\text{NUMBER OF CHILDREN SCREENED}} = \text{COST PER CHILD}$$

|                                              |                                                                                              |
|----------------------------------------------|----------------------------------------------------------------------------------------------|
| Average Unit Workload                        | <u>a</u> hours to give a test                                                                |
| Children Screened                            | <u>b</u>                                                                                     |
| Workload                                     | 8 hrs/a = <u>c</u> children per day                                                          |
| Annual Workload                              | 2000/8 = 250 <u>c</u> = <u>d</u> children per year                                           |
| Average Annual Cost                          | $\frac{\text{low salary} + \text{high salary}}{2} = \$\text{e} \text{ average annual costs}$ |
| Full Time Equivalents                        | b/d = <u>f</u> FTE paraprofessionals                                                         |
| Annual Personnel Cost                        | \$e x h = \$ <u>g</u> annual personnel cost                                                  |
| Personnel Cost                               | \$g/b = \$ <u>h</u> personnel cost per child                                                 |
| Equipment Cost                               | $\frac{\text{cost of equipment}}{b} = \$\text{i} \text{ equipment cost per child}$           |
| TOTAL COST PER CHILD \$h + \$i = \$ <u>j</u> |                                                                                              |

Figure 7. AN ILLUSTRATIVE COST BREAKDOWN

The Average Unit Workload (a) is the average amount of time required for a paraprofessional to administer and score a test. Children Screened (b) is the number of children to be screened by E.P.S.D.T. statewide. The Workload (c) is the number of children that could be screened in one day, determined by dividing 8 hours (one working day) by the Unit Workload (a). The Annual Workload (d) is the number of children who could be screened by one paraprofessional. This is figured by dividing the annual number of hours a paraprofessional is available (50 weeks x 40 hours or 2,000 hours) by the hours per day (8), results in the number of work days per year (250). This is then multiplied by the Workload (c). If a paraprofessional is

available 8 hours per day, 40 hours per week, 2,000 hours per year, then  $(2000/8 = 250 \times c = d)$ .

The Average Annual Cost (e) is the average annual salary cost of a paraprofessional. This is determined by adding the lowest salary plus the highest salary of the paraprofessional classification of test administrator and dividing that sum by two. Full-Time Equivalents (f) is the number of Full Time Equivalent Employees (FTE) needed. This is figured by dividing the number of Children Screened by E.P.S.D.T. (b) by the Annual Workload (d). The Annual Personnel Cost (g) is the cost of the personnel for a year. This is determined by multiplying the Average Annual Cost [(e) salary] by the Full Time Equivalents (f). Personnel Costs (h) is the personnel cost per child. This is figured by dividing the Annual Personnel Cost (g) by Children Screened (b).

Equipment Cost (i) is the equipment cost per child. This is determined by dividing the total cost per year of the equipment by Children Screened (b).

The Total Cost per Child (j) for each test, is the sum of the Equipment Cost (i) and the Personnel Cost (h).

The procedures for the preceding components of the model were as follows:

Paraprofessionals were informed that they would be timed by an observer during test administrations and

scoring so that an average number of minutes required to give a test could be calculated. Information concerning when timing would begin and end was explained, as noted below. The paraprofessionals were reassured that the timing was for forecasting only and was not a personal measure of their test administration speed.

Time was measured in minutes and commenced when the child crossed the threshold of the room where the test was given, and ended when he crossed the threshold on leaving the room at completion of the test.

Time for scoring was measured in minutes and commenced when the scorer first picked up the test. When the pencil was put down, timing ceased. Time for interpretation of the test would need to be included, but, for the two tests for which this model was developed, the time for interpretation could easily be included by simply adding this to the scoring time.

The range as well as average number of minutes was obtained for test administration. Also the range and the average number of minutes were obtained for scoring. The Average Unit Workload (a) was the averages of administration and scoring which were summed to yield a mean time for each screening technique.

Children Screened (b) was determined from data collected from the Family Health Program Office of the State

of Florida concerning the number of children processed annually under E.P.S.D.T. The Workload (c) was obtained by dividing one working day (8 hours) by the Unit Workload time to administer and score a test). The Annual Workload (d) was determined by multiplying the mean time (Average Unit Workload) for each technique by the number of hours a paraprofessional was available.

The Average Annual Cost (e) was obtained from the State Personnel Department and included the salaries and fringe benefits of paraprofessional test administrators. The number of Full Time Equivalents (f) was determined by dividing children screened by Annual Workload (number of children one paraprofessional could screen annually). Annual Personnel Cost (g) was calculated by multiplying the Average Annual Cost by the Full Time Equivalents. The Personnel Cost (h) was figured by dividing the Annual Personnel Cost by the number of Children Screened.

Equipment Cost (i) was the annual cost of equipment, royalties, and contracts obtained from the screening test developers divided by the number of Children Screened.

#### Analysis of Findings

The screening results of the ZITA/ADT as a whole and its subscores were compared with the diagnostic evaluation, with the fullscale and subscores of the WISC-R, and with



the WRAT reading and arithmetic subscores. Both samples combined and each sample separately were considered. No correlation of significance was found.

The highest correlations found were those of the ZITA/ADT "slow" subscore with the WISC-R performance subscore which had a corrected chi-square value of 13.04 at the .0003 level of significance; and with the verbal subscore which had a corrected chi-square value of 9.53 at the .002 level of significance. For evaluative profiles see Tables 17-19.

TABLE 18  
EVALUATIVE PROFILE FOR THE ZITA/ADT SUBSCORE 'SLOW'  
BASED ON THE VERBAL SUBSCORE OF THE WISC-R FOR  
BOTH SAMPLES COMBINED

| SCREENING<br>RESULTS | WISC-R VERBAL |             | TOTAL |
|----------------------|---------------|-------------|-------|
|                      | VARIANT       | NOT VARIANT |       |
| POSITIVE             | 7             | 19          | 26    |
| NEGATIVE             | 10            | 154         | 164   |
| TOTAL                | 17            | 173         | 190   |

Sensitivity = .41

Specificity = .89

Underreferral = .05

Overreferral = .10

Phi = .25

TABLE 19  
EVALUATIVE PROFILE FOR THE ZITA/ADT FOR BOTH SAMPLES COMBINED  
BASED ON WISC-R FULLSCALE IQ SCORE  
(IQ CUTOFF FOR VARIANT = 80)

| SCREENING<br>RESULT | <u>WISC-R FULLSCALE</u> |             | TOTAL |
|---------------------|-------------------------|-------------|-------|
|                     | VARIANT                 | NOT VARIANT |       |
| POSITIVE            | 22                      | 56          | 78    |
| NEGATIVE            | 11                      | 101         | 112   |
| TOTAL               | 33                      | 157         | 190   |

Sensitivity = .66

Specificity = .64

Overreferral = .29

Underreferral = .05

Phi = .24

The PSI had three separate scores:

- 1) The rawscore (the number of correct questions answered by the child) preports to represent a gross screen of psycholinguistic integrity. A positive or negative score was determined by a specific number of correctly answered questions for each age group. This specific number was selected for each age group based on experimental data.

- 2) Auditory sequential memory score consists of six digit span questions, of which the number of digits correctly remembered was correlated with age to obtain a positive or negative score. Auditory sequential memory dysfunction is considered to be a major precursor to dyslexia in children.
- 3) High risk determinant scores are six behavioral questions answered by the test administrators as their assessment of the child's behavior - one or more positive responses constituted a positive score.

Several iterations of PSI screening result by several levels of IQ scores were performed to obtain the IQ cutoff which was the best indicator of intellectual dysfunction. This was done on IQ scores ranging from 65-80 since various agencies and disciplines at different times consider IQ cutoffs to indicate retardation. For example, the Florida State Board of Education (SBERGA - 6.3011[1][a]) has designated an IQ score of 69 as its cutoff point; whereas the American Psychiatric Association has defined an IQ level of 83 as the cutoff in Diagnostic and Statistical Manual of Mental Disorders, 2nd Edition, 1968.

When the PSI was correlated with the WISC-R fullscale scores of 65-69, it had a phi coefficient of approximately .40. The sensitivity of the PSI was 100% at WISC-R fullscale of 65 and decreased only to 90% at WISC-R fullscale of 69. The specificity of the PSI varied between 81% and 83%. The

underreferral rate was 0% which is perfect. The overreferral rate was 16%.

When the PSI was correlated with the WISC-R fullscale scores of 70-75, it had a phi coefficient of approximately .39. Sensitivity was nearly 75% and specificity was about 83%. Overreferral was 14% and underreferral was 2%.

When the PSI was correlated with the WISC-R fullscale scores of 76-80, it had a phi coefficient of approximately .42. However, sensitivity decreased to 64% while specificity increased to 85%. Overreferral was 12% and underreferral doubled to 4%.

Since for IQ's of 65-69 there was no appreciable decline in predictive value of the PSI to identify problems versus absence of intellectual problems; an IQ score of 70 was chosen as the optional IQ cutoff.

As the rawscore is not adjusted for age but has different cutoffs for each age group, the optional IQ cutoff was charted with the rawscore within each age group. This was performed to see if there were any natural clustering or if there appeared to be a quantum jump in scores at any point that either supported or contradicted the initially selected referral point (cutoff) for that age group.

There were no quantum jumps in scores, therefore, to determine the optimal PSI rawscore value for each age (6-12), the intercept and slope for each age group were used

Medicaid sample, .493 for the elementary school sample, and .417 for both samples combined as seen in Table 20.

TABLE 20

EVALUATIVE PROFILE FOR THE PSI RAWSCORE BASED ON THE  
FULLSCALE SCORE OF THE WISC-R FOR BOTH SAMPLES COMBINED

| SCREENING<br>RESULT | WISC-R FULLSCALE |             | TOTAL |
|---------------------|------------------|-------------|-------|
|                     | VARIANT          | NOT VARIANT |       |
| POSITIVE            | 10               | 27          | 37    |
| NEGATIVE            | 2                | 147         | 149   |
| TOTAL               | 12               | 174         | 186   |

Sensitivity = .83

Specificity = .89

Underreferral = .01

Overreferral = .15

Phi = .43

The average length of time to administer and score the tests was 15 minutes for the PSI and 27 minutes for the ZITA/ADT as depicted in Table 21. With the PSI, 7,750 children could be screened by one paraprofessional annually, and 4,250 with the ZITA/ADT as seen in Table 22. Table 23 displays the sliding scale for the PSI which varies from \$2.14 per child for 35,000 children to \$2.06 per child for 100,000 children. Table 24 depicts the cost per child for

the ZITA/ADT, ranging from \$3.55 for 35,000 children to \$3.51 for 100,000 children.

TABLE 21  
TOTAL NUMBER OF MINUTES FOR EACH SCREENING TEST

| Test Components | <u>Developmental Screening Test in Min.</u> |      |
|-----------------|---------------------------------------------|------|
|                 | PSI                                         | ZITA |
| Administration  | 13.25                                       | 21   |
| Scoring         | 2                                           | 6    |
| Total           | 15.25                                       | 27   |

TABLE 22  
NUMBER OF CHILDREN WHO COULD  
BE SCREENED BY ONE PARAPROFESSIONAL

| Time                  | <u>Developmental Screening Test</u> |      |
|-----------------------|-------------------------------------|------|
|                       | PSI                                 | ZITA |
| Daily (8 hours)       | 31                                  | 17   |
| Annually (2000 hours) | 7750                                | 4250 |

TABLE 23  
TOTAL COST PER CHILD FOR PSI

| CHILDREN<br>SCREENED BY<br>E.P.S.D.T. | PSI<br>ROYALTIES | PERSONNEL<br>COST | TOTAL<br>COST PER<br>CHILD |
|---------------------------------------|------------------|-------------------|----------------------------|
| 35,000                                | .99              | 1.15              | 2.14                       |
| 50,000                                | .97              | 1.15              | 2.12                       |
| 65,000                                | .95              | 1.15              | 2.10                       |
| 80,000                                | .93              | 1.15              | 2.08                       |
| 100,000                               | .91              | 1.15              | 2.06                       |

TABLE 24

TOTAL COST PER CHILD FOR ZITA

| CHILDREN<br>SCREENED BY<br>E.P.S.D.T. | ZITA<br>ROYALTIES | ZITA<br>EQUIPMENT | PERSONNEL<br>COST | TOTAL<br>COST PER<br>CHILD |
|---------------------------------------|-------------------|-------------------|-------------------|----------------------------|
| 35,000                                | .289              | 1.157             | 2.10              | 3.55                       |
| 50,000                                | .29               | 1.17              | 2.10              | 3.56                       |
| 65,000                                | .2942             | 1.1769            | 2.10              | 3.57                       |
| 80,000                                | .28125            | 1.125             | 2.10              | 3.51                       |
| 100,000                               | .28125            | 1.125             | 2.10              | 3.51                       |

The test developers are contemplating making modifications in the PSI and ZITA/ADT which will reduce the number of questions in the PSI and the number of tasks for the ZITA/ADT. This would reduce both the cost of the instruments and the cost of the personnel as the tests would be less expensive to produce, and the personnel cost associated in administering them would be less (Table 25).

TABLE 25

## TOTAL COST PER CHILD FOR MODIFIED ZITA

| CHILDREN<br>SCREENED BY<br>E.P.S.D.T. | ZITA<br>ROYALTIES | ZITA<br>EQUIPMENT | PERSONNEL<br>COST | TOTAL<br>COST<br>PER CHILD |
|---------------------------------------|-------------------|-------------------|-------------------|----------------------------|
| 35,000                                | .10               | .40               | .84               | 1.34                       |
| 50,000                                | .09               | .35               | .89               | 1.29                       |
| 65,000                                | .0942             | .3769             | .84               | 1.31                       |
| 80,000                                | .09               | .35               | .84               | 1.28                       |
| 100,000                               | .09               | .35               | .84               | 1.28                       |

When the modifications are completed, a replicate cost evaluation could be performed using the same model as in this study.

An area of concern expressed in the evaluation report



for the first fiscal year was that of tester effect. Therefore, the possible influence of the test administrator on the outcome of each of the screening devices was examined. Only those cases secured through the Epilepsy Foundation were used for this study because there were three test administrators for this sample with the number of test administrations divided almost equally among the three. For the CHCP sample one person administered a great majority of the screens and therefore no comparison could be made. The number and percent of positive and negative screens for each tester was examined. One tester demonstrated no positive screens in his 34 administrations of the PSI. When his results were compared with those of the professional diagnoses, however, the tester's outcomes were confirmed. The number and percentage of confirmed and not confirmed screens for each tester for each test were calculated and subjected to a chi square test to examine the relationship between tester and confirmation condition. No meaningful difference among the three testers was found. The effect of the sex of the tester on screening results was also examined as two testers were female and one was male. Again, no meaningful differences were found.

#### CONCLUSIONS

There is no doubt that the ZITA directly measures

some aspect of an individual's ability to function in his environment. As the tasks become more difficult they require more decision work by the brain and when the information load of the ADT is added there is a further requirement to handle overload without panic. Therefore, it is the judgment of the researchers that it is better applied as an aptitude test, useful when screening applicants for positions that have high-stress, high-stimulus load factors, such as air-traffic controller. However, the intense attention and split-second reaction time required to perform well on the ZITA/ADT do not appear, according to our studies, to have any relationship to performance on standardized traditional measurements of intelligence, and, by extrapolation, to performance in school and in life. In Table 26 one can see

TABLE 26  
ZITA/ADT RESULT BY INTELLECTUAL DYSFUNCTION, EMOTIONAL PROBLEMS  
OR LEARNING DISABILITIES\*

| CHCP                  | EF                   | BOTH                  |
|-----------------------|----------------------|-----------------------|
| SENS 81%    UNDER 12% | SENS 57%    UNDER 9% | SENS 75%    UNDER 11% |
| SPEC 20%    OVER 27%  | SPEC 47%    OVER 42% | SPEC 40%    OVER 35%  |
| PHI .02               | PHI .03              | PHI .15               |

\* This includes the overall outcome across all ZITA/ADT subscores compared to the variant diagnostic confirmation in any one or more problem categories.

that the ZITA/ADT was insignificant in detecting intellectual dysfunction, emotional problems or learning disabilities. From the results of the study, we would not recommend the ZITA/ADT for state wide implementation.

From the results of this study, the PSI appears to be an inexpensive, quick, and simple to administer test to detect the developmental disabilities of intellectual dysfunction. For the Medicaid population alone, the results were not as promising, with only a phi of .34. In this study, the PSI was not able to detect learning disabilities or emotional problems. When these problems were combined with intellectual dysfunction, the phi was .17 for the CHCP sample as seen in Table 27. From the results of this study, we would not recommend the PSI for state wide implementation.

TABLE 27  
AGE ADJUSTED RAWSCORE OF PSI BY INTELLECTUAL DYSFUNCTION,  
EMOTIONAL PROBLEMS, OR LEARNING DISABILITIES\*

| CHCP    |     |       |      | EF      |      |       |     | BOTH    |     |       |     |
|---------|-----|-------|------|---------|------|-------|-----|---------|-----|-------|-----|
| SENS    | 45% | UNDER | 37%  | SENS    | 19%  | UNDER | 17% | SENS    | 38% | UNDER | 26% |
| SPEC    | 72% | OVER  | .09% | SPEC    | 100% | OVER  | 0%  | SPEC    | 93% | OVER  | 4%  |
| PHI .17 |     |       |      | PHI .40 |      |       |     | PHI .38 |     |       |     |

\* This includes the age adjusted PSI result compared to the variant diagnostic confirmation of any one or more problem categories.

However, in the CHCP sample, 75% of the children had been enrolled in a Medicaid program for at least a year. During this time only 3 of these children had been diagnosed as having developmental problems even though they had been seen by a team of diagnosticians (pediatricians, nurses, social workers). After the initiation of the Demonstration Project's developmental assessment, 60% of these children were diagnosed as having developmental problems by Dr. Seligman. Of the 89 children in the sample, 64 had at least one problem in intellectual dysfunction, emotional problems or learning disabilities, and 28 had problems in two or all three of these categories.

Therefore, while we accept screening as a model of assessing developmental disabilities, we also encourage further exploration for possible alternative instruments. These screening devices can and should be objectively assessed using the classical public health techniques of Armistead & Crawford (1974).

The need for early childhood screening to detect developmental disabilities is vital. Early detection and subsequent diagnosis and treatment can and does prevent hardship on the individual, his family, and the nation's human service systems (Adler, 1977); (Faas, 1976). The need for accurate and low cost screening has been established, as has its feasibility. The models employed by the Dade

County E.P.S.D.T. Demonstration Project, as well as the PSI and ZITA test results, brought to focus the need for still more effective tests and screening techniques.

#### Reference Notes

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## SCHOOLS COMPONENT

### INTRODUCTION

The objective of the Dade County E.P.S.D.T. Demonstration Project's Schools Component was to examine ways to facilitate the provision of health care services to Medicaid eligible children in the Dade County school system.

This component was comprised of two activities: the first was a study of the effects of case intervention by school personnel; and the second involved the identification of handicapped children by the E.P.S.D.T. Project and their referral for appropriate educational services.

To achieve these objectives, the E.P.S.D.T. Project had numerous meetings with various key school personnel such as the School Health Coordinator and representatives from the Dade County School System and the School Board.

The purpose of the first activity mentioned above, the School Intervention Study, was to test the effect of intervention by school personnel on getting clients to show for screening and treatment appointments. Specific guidelines for this study were established by the Project. These guidelines involved school personnel sending notices home with children (who had medical or dental appointments) to serve as an appointment reminder to the parent of that child.



The second activity involved the identification of handicapped children by the E.P.S.D.T. Project and their referral for appropriate educational services. Arrangements were made with the special education programs in the public schools for identification of handicapped children. Once identified by the Project, the parents of those children were notified that their child was eligible for referral to the appropriate school personnel for enrollment in a program geared to their needs.

The more detailed description of the school intervention and handicapped activities which follows will allow the reader a better understanding of the objectives and processes involved in the Schools Component.

#### SCHOOL INTERVENTION STUDY

A recurrent problem in the Medicaid system is that of getting children to attend appointments at public health clinics for the purpose of obtaining E.P.S.D.T. services. The purpose of the Demonstration Project's school intervention study was to test methods of improving this appointment keeping behavior by involving the public school system in the process. Specifically, the school intervention study was a research effort designed to examine the effect of intervention by school personnel on the appointment keeping behavior of E.P.S.D.T. eligible children.

METHODS

For the purpose of the study, intervention by school personnel was defined as the direct involvement of the Public School System in reminding parents of pending screening or treatment appointments for their E.P.S.D.T. eligible children. To accomplish this, each time that a Project case monitor scheduled a screening or treatment appointment for a child, a notice containing details of the appointment (time and place) was mailed to the child's school. Upon receiving the notice, the school issued it to the child who was to take it home to his or her parent. The notice was meant to serve as a reminder to the parent that the child had a pending appointment. Copies of the reminder letter, and the cover letter which accompanied it to the school, are contained in Appendix IX.

The appointment keeping behaviors of two groups of children were compared in the study -- an experimental group and a control group. Members of both groups received identical case management services with one exception -- the experimental group subjects received an appointment reminder from their public schools each time that a screening or treatment appointment was scheduled for them (School Intervention). Control group subjects did not receive this additional service.

Fifty subjects were selected for inclusion in the experimental group; and fifty additional subjects as a control group. Sampling of subjects for each group was based on the date of request for E.P.S.D.T. services. Experimental group subjects were selected from among Project clients who requested E.P.S.D.T. services during a

specific two month time period. Control group subjects were selected from among Project clients who requested services during a contiguous two month period. Appendix X contains a complete listing of school intervention study procedures and flow chart.

After all screening and treatment appointments for experimental and control group subjects were completed, appointment outcomes were grouped into one of two outcome categories. These categories were: (1) kept, and (2) not kept. The effectiveness of school intervention was then evaluated on the basis of the proportion of kept versus not kept appointments for each experimental condition.

## RESULTS

The greatest difference in the percentage of kept outcomes occurred for the first screening appointment. Ninety percent of these appointments were kept for the experimental group, and 59 percent were kept for the control group (see Table 28). This 31 percent difference between the two groups suggests that school intervention does result in an increased proportion of kept first screening appointments.

Different results were indicated, however, if the outcome of all treatment appointments between the two groups were compared. Table 29 reveals that the proportion of kept treatment appointments for the experimental and control groups was 66 percent and 71 percent respectively. This suggests that school

intervention may not increase the proportion of kept treatment appointments.

TABLE 28

NUMBER AND PERCENT OF SUBJECTS BY STATUS OF FIRST SCREENING  
APPOINTMENT AND SCHOOL INTERVENTION GROUP

| STATUS OF FIRST<br>SCREENING APPOINTMENT | SCHOOL INTERVENTION GROUP |      |                |      | TOTAL<br>N % |      |
|------------------------------------------|---------------------------|------|----------------|------|--------------|------|
|                                          | EXPERIMENTAL<br>N %       |      | CONTROL<br>N % |      |              |      |
| KEPT                                     | 43                        | 90%  | 23             | 59%  | 66           | 76%  |
| NOT KEPT                                 | 5                         | 10%  | 16             | 41%  | 21           | 24%  |
| TOTAL                                    | 48                        | 100% | 39             | 100% | 87           | 100% |

TABLE 29

NUMBER AND PERCENT OF ALL TREATMENT APPOINTMENTS  
BY APPOINTMENT STATUS AND SCHOOL INTERVENTION GROUP

| STATUS OF ALL TREAT-<br>MENT APPOINTMENTS | SCHOOL INTERVENTION GROUP  |      |                       |      | TOTAL<br>N        % |      |
|-------------------------------------------|----------------------------|------|-----------------------|------|---------------------|------|
|                                           | EXPERIMENTAL<br>N        % |      | CONTROL<br>N        % |      |                     |      |
| KEPT                                      | 73                         | 66%  | 87                    | 71%  | 160                 | 68%  |
| NOT KEPT                                  | 38                         | 34%  | 36                    | 29%  | 74                  | 32%  |
|                                           |                            |      |                       |      |                     |      |
| TOTAL                                     | 111                        | 100% | 123                   | 100% | 234                 | 100% |

Finally, the effectiveness of school intervention was viewed from an "aggregate" prospective. Table 30 is a comparison of appointment status (or outcome) by school intervention group for all appointments combined (screening and treatment). Overall, the percentage of kept appointments for the experimental group was four percent higher than that of the control group (71% vs. 67%). This difference is not statistically significant.

TABLE 30

NUMBER AND PERCENT OF ALL SCREENING AND TREATMENT APPOINTMENTS BY  
APPOINTMENT STATUS AND SCHOOL INTERVENTION GROUP

| STATUS OF ALL SCREEN-<br>ING AND TREATMENT<br>APPOINTMENTS | SCHOOL INTERVENTION GROUP |      |                |      | TOTAL<br>N % |      |
|------------------------------------------------------------|---------------------------|------|----------------|------|--------------|------|
|                                                            | EXPERIMENTAL<br>N %       |      | CONTROL<br>N % |      |              |      |
| KEPT                                                       | 118                       | 71%  | 124            | 67%  | 242          | 69%  |
| NOT KEPT                                                   | 49                        | 29%  | 61             | 33%  | 110          | 31%  |
|                                                            |                           |      |                |      |              |      |
| TOTAL                                                      | 167                       | 100% | 185            | 100% | 352          | 100% |

### DISCUSSION

Interpreting the results of the School Intervention Study proved to be quite perplexing. Apparently, school intervention had been effective in getting children to show for their first screening appointments, but had no effect on subsequent screening

or treatment appointments. Further, the magnitude of the effect of school intervention on first screening appointments was insufficient to suggest an overall (i.e., screening and treatment) effectiveness.

Since the Project staff was not able to construct a suitable theoretical explanation for the study results, the research methodology was reexamined. Two factors were identified which might have affected the results. First, the size of the sample used was small. Each group contained only 50 subjects. Second, random assignment was not used in placing subjects in either the Experimental or Control groups; rather, sampling was based on the date of the subject's request for screening. Thus, a degree of unexpected sampling bias may have occurred.

In evaluating the data obtained from the School Intervention Study, the Project considered three factors to be of primary importance. They were (1) the possible effects of small sample size and the sampling technique used, (2) the small cost of administering School Intervention (because of the small cost only a small benefit need be realized in order to reflect a positive cost/benefit ratio) and, (3) an indication (based on Tables 1 through 3) that School Intervention for the first screening appointment seemed to have the greatest impact. Considering these three factors, the Project determined that additional data were needed to evaluate the effect of school intervention. A second study, therefore, was initiated.

## SCHOOL INTERVENTION STUDY PHASE II

School Intervention Study Phase II contained several modifications over the original study. This time, random assignment was used in placing subjects in either the experimental or control group, and both groups were sampled during the same time period. Again as in the first study, both groups received identical case management services. Also, as was previously done, the experimental group children received the additional "benefit" of the reminder letter from the school for their first screening appointment. However, they did not receive reminders for subsequent screening appointments or for treatment appointments. Detailed procedures for the Phase II Study are contained in Appendix XI.

## RESULTS

Since the focus of the Phase II Study was greatly narrowed over the original study, a single table is sufficient to express the results. Table 31 shows the relationship between appointment status by experimental condition for the Phase II Study. The results were quite different from what was expected based on the original study. The percentage of first kept screening appointments for the experimental group was no greater than it was for the Control Group. Thus, the original finding that school intervention may increase the proportion of kept first screening appointments was not supported.

TABLE 31  
NUMBER AND PERCENT OF CLIENTS BY SCHOOL INTERVENTION GROUP  
AND STATUS OF FIRST SCREENING APPOINTMENT - PHASE II

| STATUS OF FIRST<br>SCREENING APPT. | SCHOOL INTERVENTION GROUP |      |         |      | TOTAL<br>N    % |      |
|------------------------------------|---------------------------|------|---------|------|-----------------|------|
|                                    | EXPERIMENTAL              |      | CONTROL |      |                 |      |
|                                    | N                         | %    | N       | %    |                 |      |
| KEPT                               | 16                        | 36%  | 22      | 42%  | 38              | 39%  |
| MISSED                             | 28                        | 64%  | 31      | 58%  | 59              | 61%  |
|                                    |                           |      |         |      |                 |      |
| TOTAL                              | 44                        | 100% | 53      | 100% | 97              | 100% |

#### DISCUSSION OF ORIGINAL AND PHASE II SCHOOL INTERVENTION STUDIES

Is school intervention a useful addition to case management? The data collected during these studies clearly do not provide an unequivocal answer - a situation which is not uncommon in social research. However, several observations were made during the course of the two studies which did provide some insight.

The first of these observations involves the small proportion of E.P.S.D.T. eligibles which could theoretically be helped by school intervention. Even obtaining a sufficient quantity of subjects for the study was a major problem, because so few potential subjects met the criteria necessary for the study. It was identified as such in the original study and



even though a real effort was made to overcome the problem in the Phase II Study, it could not be overcome.

The problem of obtaining a sufficient quantity of subjects for the study was not as simple as it might appear. The first step in the process of selecting subjects involved: (1) determining if the child attended school, (2) determining which school the child attended, and (3) ensuring that the school was a public school. Obtaining this information necessitated a personal interview with the parent of each perspective subject. A home interview is routinely conducted for all new Project clients. For many cases, however, information about a child's school was not obtained in time for the school reminder to arrive to the parent before the date of the first screening appointment. This was the result of two factors: (1) a concerted effort on behalf of case monitors to schedule clients for screening as expeditiously as possible, and (2) the length of time required for the appointment reminder to arrive to the parent (estimated by the Project to take at least one week). Add to this amount the vacation time during which the schools are closed, and the proportion of children whom could benefit from school intervention is further diminished. The consequence of all this is that nearly three-fourths of all children taken on by the Project could not be given School Intervention.

Another observation involved that of assuring the experimental treatment (the reminder letter) was delivered

to the parent. During the original Study the Project attempted to check with the parents of experimental group subjects to see how many letters had arrived. This proved to be an impossible task due to the parent's poor recall, uncertainty about what they received in the mail or their willingness to appease their social worker. In any event, there seemed to be ample opportunity for the reminder letter to get lost or delayed in transit between the Project, the child, the parent and the school.

The final observation involved appointment rescheduling. On occasion, a screening or treatment appointment might be rescheduled by the clinic or the parent. If this occurred after a reminder letter was sent but before it arrived to the parent, a great deal of confusion could result to the parent.

In summary, the Project identified three factors which provided insight into the usefulness of school intervention as a case management technique. First, even if the data had shown school intervention to be a useful addition to case management, only a small proportion of E.P.S.D.T. eligible children could potentially benefit from it. This is true because: (a) nearly half of all E.P.S.D.T. eligibles do not attend school; and (b) schools are closed for several months out of the year. Second, it takes at least one week and several transitional steps (from the Project, to the school, to the child, to the parent) for the reminder to be received by the parent. There is, therefore a strong likelihood that the reminder letter will be either lost during transit, or arrive after the

date of the appointment. Third is the problem of appointment re-scheduling. A parent might experience a great deal of confusion if the reminder letter from the school arrives to the parent after he/she has been informed that the appointment was cancelled. This situation could occur if an appointment was cancelled after the reminder letter was mailed from the Project to the school. Based on these three factors and on study results, the Project concludes that school intervention is not a useful addition to case management. Additionally, since school intervention can only be utilized in conjunction with case management (because of the client tracking system required by school intervention) the Project cannot foresee any modifications to school intervention which would improve on the results achieved over case management by itself.

#### HANDICAPPED STUDY

Federal law 94-142 (Education for all Handcapped Children Act of 1975) requires that schools identify all children with handicapping conditions in order that supportive services and individualized programs can be provided. The handicapped portion of the schools component is a cooperative agreement between the public schools and the Project designed to aid the schools in identifying children with possible learning handicaps.

This portion of the Schools Component was conducted from a service oriented perspective. Therefore, statistical

records were kept for administrative and evaluative purposes only. No research hypotheses were tested.

#### METHODS

As part of its Developmental Screening Component, the E.P.S.D.T. Demonstration Project screened and diagnosed over a hundred children for developmental disabilities. The scope of the diagnoses performed on these children was quite extensive and included three categories of mental health problems which could result in a learning handicap. These areas were: (1) intellectual dysfunctions; (2) emotional problems; and (3) learning disabilities. A Project case monitor visited the parents of all children who were diagnosed as having one or more of these three conditions. During the visit the parents were asked if they would like their child's school notified that their child may have a possible learning handicap. If the parents agreed, they were asked to sign a consent form to that effect. After obtaining the consent form, the Project (by prior arrangement with the public schools) mailed it, along with a cover letter including the child's name, address and school, to the Diagnostic Resource Center for the Dade County Public Schools. The cover letter stated that the child had been screened and diagnosed as having a developmental problem which might represent a handicapping condition under 94-192, but did not discuss the specific nature of the condition. It was the school's responsibility to determine if some type

of special education was appropriate. In addition, the Diagnostic Center was asked to respond to two questions for each child referred by the Project. (1) Was a Special education program considered necessary? and (2) Was a special education program implemented? Copies of the parental consent form and the cover letter are contained in Appendix XII.

### RESULTS

During the course of the handicapped study, Project case monitors visited the parents of 48 children with suspected learning handicaps. Of these, the parents of 41 indicated that they wanted their children's school notified and signed the consent form. The name, address, school and a copy of the consent form for each of the 41 children was then turned over to the Diagnostic Resource Center.

Upon evaluating the 41 children referred to them by the Project, the Diagnostic Resource Center judged two children as possible candidates for special education placement. The remaining 39 children were considered to be performing adequately in their current educational settings.

### DISCUSSION

The results of this study indicate that the majority of the children identified by the project as having a possible learning handicap were not so perceived by the Diagnostic Resource Center. How might this outcome be explained?

As was stated previously, the scope of the diagnoses utilized for the Project's Developmental Screening Component was quite extensive, and included a wide range of mental health problems (the diagnoses were done for reasons in addition to the identification of learning handicaps). Making a distinction between mental health problems which were likely to result in a learning handicap, and those which were not, was a task beyond the scope of the Project's capabilities. Therefore, all children who had problems identified during diagnosis were referred and identified as having a possible learning handicap. It was expected that some of these children would not be found to be in need of special education.

Additionally, learning problems which were diagnosed in a clinical setting may not necessarily have become manifest as performance deficits. Rather, it seems likely that children with some types of disabilities are able to compensate for them, resulting in a performance level which does not deviate appreciably from the norm. This may be true to an even greater degree when the "norm" is composed of an inner city, low income population, as was the case with the children in this study.

The scope of the diagnoses performed, and the hypothesized ability of the children to compensate for their problems, probably explains why so few children were referred for further study by the Resource Center--especially since the center based this determination primarily on school performance level.

However, for purposes of student evaluation, the Resource Center was interested in obtaining results of certain tests which were administered to the children during the course of diagnosis. These tests included intelligence tests like the WISC-R, and projectives like the House, Tree, Person test. But due to policy differences which exist between the Health/Welfare Department and the Education Department (on the classification of personnel which must be used to administer this type of test), the resource Center could not utilize the test results.

As a result of this study, the Project concludes that its attempt to identify learning handicapped children to the public schools, based on a diagnostic work up by a psychiatrist, was of limited value to the public schools as well as to the students. In large part this outcome resulted from the policy differences which exist between the Department of Health/Welfare and the Department of Education. Both of these Departments are concerned with the mental health of children. Differences, however, in implementation criteria, including the acceptability of certain types of tests and the qualifications of test administrators, and even in definitions of what constitutes handicapping condition, greatly inhibit cooperation between the agencies. A narrowing of the policy differences between the two agencies is needed so that a more coordinated effort between public health clinicians and educational professionals can be realized to the benefit of the learning handicapped child.

## OLDER CHILD

### INTRODUCTION

Historically the E.P.S.D.T. Program has focused on the health care problems of the younger child. When the grant was awarded in Fiscal Year 1976-1977, the Department of Health, Education and Welfare felt that it was important to give added attention and emphasis to the "Older Child" aged nine through twenty. The grantors recognized that adolescence is a very unique period within life's development. It represents a time of transition between childhood and adulthood; a time of stress and change; a time of growing independence and responsibility; and a time for the development of coping mechanisms which will serve in years to come. Yet, often the teenager is confronted with serious medical or emotional problems. Many of these problems, if identified early and subjected to appropriate treatment, can prevent later complications. Consequently, in response to concerns, the grantors felt that further exploration of the health care problems of the older child was needed. In response to their concerns, the Project leadership agreed that it would be extremely beneficial to develop materials for health care professionals to aid them in identifying emotional and medical problems of special



importance during the teen years.<sup>6</sup> Thus, one of the major components of the Dade County E.P.S.D.T. Demonstration Project was dedicated to developing innovative approaches to make medical services more available, appropriate and relevant to the older child.

The Older Child Component involved collaboration with prominent health care professionals in Dade County to establish guidelines for identifying and treating the health problems experienced by the Older Child. This effort was implemented through the creation of a multi-media information package for providers of health services.

#### THE DEVELOPMENT OF THE OLDER CHILD INFORMATION PACKAGE

During the 1976-1977 Fiscal Year, the Project sought assistance in the development of the Older Child Information Package. After speaking with a number of people in the Dade County community, a contract was negotiated with Dr. Anthony Nowels, then associated with the University of Miami Department of Psychiatry Adolescent Unit. Later that year Dr. Nowels became the Medical Director of the Grant Center Hospital and Treatment Center in Miami, a comprehensive psychiatric treatment center for children and young adults.

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<sup>6</sup> Helen Martz, "Learning Through Doing", reprinted from The Social and Rehabilitation Record, Vol. 2, Number 1, April 1976.

Weekly meetings were held between the E.P.S.D.T. Demonstration Project staff, Dr. Nowels and other professional experts who worked for the Grant Center Hospital. Physicians, psychologists, social workers and health care administrators all had input into the final product.

The first item which the multi-disciplinary team decided upon was the content of the information package. It was determined that the final product would include:

1. Guidelines for the identification of health care problems commonly found in the older child.
2. Diagnostic guidelines for physicians and other health care providers on problems commonly found in the older child.
3. Identification of referral sources for high-risk children.

It was also decided that the information package would consist of three major components. It would contain: a manual with screening information and diagnostic criteria; a desk top reference unit with pertinent information abstracted from the manual; and three posters depicting critical aspects of the adolescent life.

CONTENTS OF THE INFORMATION PACKAGEThe Manual

After a number of meetings between the staff of the E.P.S.D.T. Demonstration Project and Grant Center Hospital, it was decided that the manual would be entitled The Handbook of Special Problems in Teenagers. The manual highlights many of the health care problems which are potentially dangerous during adolescence. The problems discussed include: learning disabilities, depression, pregnancy, venereal disease; schizophrenia; suicidal ideation and behavior; delinquency and antisocial character disorder; manic-depressive illness; mental retardation; and development and brief situational disturbances.

A number of "indicators" accompanies each of the problem discussions. These indicators are listed in order of importance. They are presented to help the professional recognize the presence of health care problems which in all probability will require special treatment. For instance, the health care problem depression is accompanied by indicators such as boredom, irritability, hate school, losing friends, low self-esteem, dysphoric mood and poor concentration.

Also presented is a "threshold" number of indicators for each health problem. The threshold is used to signify

that, when a certain number of indicators are presented (such as three out of eight, or four out of twelve) the professional can be fairly certain that further diagnostic efforts are warranted. Each problem category also contains referral information. The health care provider is given information as to where to refer a high-risk child for further diagnosis and, if needed, treatment. For example, it is recommended that a child who is thought to be depressed, be referred to a multi-disciplinary clinic, mental health center or private psychiatrist for extensive evaluation. This is necessary to positively establish the diagnosis of depression, to rule-out possible organic causes of depression and to establish the appropriate level of intervention such as counseling, group therapy, individual psychotherapy or the use of medication.

Further, after each problem area there is a reference section. This section consists of a list of books, manuals, magazines and papers used to do the research on each health care problem. Extensive review of literature on psychiatric and medical problems of teenagers was done in order to provide the best possible thoughts and advice concerning teenage problems. Where there were varying and conflicting opinions, efforts were made to provide the most widely held ideas and point out to the reader the existence of varying opinions.

The manual has a section containing diagnostic criteria for a number of the problem categories. These particular problem categories were selected because they had existing, agreed-upon scientific and clinical diagnostic criteria to support them. They include: depression; schizophrenia; drug abuse and alcoholism; anti-social personality; and chronic-depressive illness.

Additionally, at the end of the manual there is a section which contains cross-referencing of information. All of the indicators are listed as well the problem categories in which they belong.

#### The Desk-Top Reference Unit

The Desk-top reference unit was created as a readily available quick-reference unit to be used in conjunction with The Handbook of Special Problems in Teenagers. It contains a brief introductory statement about each of the health care problems as well as the indicators and the thresholds. It is a unit which the health care provider can keep on desk to use whenever he feels an adolescent may have a health care problem.

#### Posters

The Project created three different posters denoting pertinent aspects of the adolescent's life. They include

"Adolescence: A time of physical growth", which relates to the teenager's general development; "Adolescence: A time of emotional growth", which relates to feelings; and "Adolescence: A time of human development" which relates to well-being. These posters are colorful, decorative and pertinent to the period of life known as adolescence.

#### PROCESSING OF THE INFORMATION PACKAGE

##### Selecting A "Marketing" Agency

The E.P.S.D.T. Demonstration Project staff contacted a number of public relations firms in Miami and asked them to assist in developing a multi-media package for the Older Child Component. After a list of potential firms was developed, meetings were held between the Project and the General Services Office of the Department of Health and Rehabilitative Services. State regulations required that the design of the handbook, desk-top reference unit and all of the printing go out for competitive bid separately. This requirement is due to the nature of the purchases -- some being considered services and some considered commodities. The process proved to be very time consuming, and completion schedules for the information package had to be constantly revised.

In October, 1978, Hastings Associates, Incorporated

was chosen as the planner/designer agency to work with the Project on the Older Child Information Package. A contract was written between the Project and Hastings Associates which held the firm responsible for working with the Project to: edit The Handbook of Special Problems in Teenagers; extract the reference data to create a desk-top reference unit; design a desk-top reference unit; design three color posters based on material in the handbook; and provide specifications for packaging the handbook, reference unit and posters.

#### Selecting A Printer

Hastings Associates and Project staff worked with General Services to select a printer. A great deal of time and effort was again spent in the bid process. Finally, in April, Zenith Printers were responsible for setting type, printing, binding and preparing the cover for the handbook. They also were to print the three color process posters (size 8 inches by 24 inches); to manufacture and assemble the plexiglass desk-top reference unit; to print and insert the pages of the desk top unit; and to manufacture packaging for the entire information package.

#### EVALUATION OF THE INFORMATION PACKAGE

Letters were sent to approximately four hundred

physicians and other health providers in Monroe, Dade and Broward counties. These letters asked the providers to participate in the review and evaluation of the Older Child multi-media information package. Of these, 175 agreed to participate.

An evaluation questionnaire was developed by the Project evaluators -- International Planning Associates. Questions revolving around content, physical format and usefulness were included. Examples of specific questions were as follows:

1. Do you feel that the information contained in the Handbook is presented in a coherent manner?
2. Is the language appropriate for use by professionals; too technical, or not technical enough?
3. Is the information contained in the Handbook useful to someone in your profession?
4. Did you disagree with any of the information provided? If so, specify.
5. Is the Handbook in its present format convenient to use in terms of size, indexing, and ease of access to information?
6. Do you foresee possible usefulness of this material in your practice on an on-going basis?



## CONCLUSIONS

The writing of the older child multi-media information package was completed, on schedule, in June, 1978. However, final completion of the package for distribution to providers was a long, drawn-out process. State procedural requirements involved with the bid process, as well as the inability of the planner/designer and printer to coordinate efforts, caused the designing and printing of the package to take well over a year. As a result, the Project had to forego including the evaluation questionnaire in the older child information package. It felt that completion of the questionnaire did not warrant extending the Project for an additional period of time.

The Handbook, desk-top reference unit, and posters were not ready for distribution to health care providers until the end of September, 1979. At this time the information package was distributed to the 175 health care providers who had previously agreed to participate in its review. Included in the package was a note to the providers apologizing for the delay and stating that the physicians may forward any and all comments to the project officer in care of the Health Care Financing Administration (HCFA) at the address provided. Further, extra copies of the package were forwarded to HCFA to distribute at their discretion.

## ADVISORY COUNCIL

### INTRODUCTION

In Dade County, Florida there are many agencies clinics, hospitals and private practitioners who provide health care services to E.P.S.D.T. eligible children. However, traditionally there have been few efforts to bring these services together in a positive manner to meet the health care needs of the children. Recognizing this fact, the grantors suggested that the E.P.S.D.T. Demonstration Project establish an Advisory Council so that there could be greater coordination and utilization of available community resources in an efficient and effective manner.<sup>7</sup>

### DEVELOPMENT OF THE ADVISORY COUNCIL

In recognition of existing community expertise in the provision of health care services, one of the components of the E.P.S.D.T. Demonstration Project was devoted to creating an Advisory Council.

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<sup>7</sup> Helen Martz, Ph.D. "Learning Through Doing". Reprinted from The Social & Rehabilitation Record, Volume 3, Number 1, April 1976.

During the first half of the 1976-1977 fiscal year, Project staff developed a tentative list of agencies and health care providers which were to participate in the Council. Membership selection was based on one of two criteria:

- a. The agencies/providers were directly involved in E.P.S.D.T. services.
- b. The agencies/providers dealt closely with children who were receiving E.P.S.D.T. services.

A preliminary list was submitted for review and approval to the Department of Health and Rehabilitative Services, District Advisory Council (DAC), an arm of the State agency which operates the E.P.S.D.T. Project in Dade County. On the basis of the recommended list, the DAC commissioned the Council. Membership consisted of representatives from the: Health Systems Agency; The Dade Monroe Mental Health Board; Children's Medical Services; Head Start; Red Cross; Social and Economic Services; Juvenile Court; Public Health Department; County Planning Department; Public School System; Sunland Training Center; Community Action Agency; Jackson Memorial Hospital; University of Miami Department of Family Medicine, Psychiatry and Pediatrics; Grant Center; Legal Services of Greater Miami; Cuban Refugee Program; Family Health Center; Retardation Program; and private physicians and dentists.

After approval by the District Advisory Council, members of the staff contacted potential participants in order to discuss the Project and ask individuals if they would serve on the Council.

The first meeting was held on March 17, 1977. At this meeting it was decided that the Advisory Council would meet bi-monthly at 12:00 noon. Further, goals and objectives were identified. They were as follows:

1. Identify problems in delivering health care services to Medicaid eligible children and recommend solutions to these problems.
2. Facilitate the development of referral relationships among member agencies who provide E.P.S.D.T. services.
3. Describe health care services offered by member agencies of the Advisory Council.
4. Give input as to the future direction of the E.P.S.D.T. Demonstration Project.

#### ADVISORY COUNCIL ACHIEVEMENTS

At each of the Advisory Council meetings the members received constant up-dates of Project activities in each of the component areas. This was done in order to keep the members apprised of the Project's activities as well as to seek their assistance in problem areas. The following are selected examples of problems tackled by the Advisory

Council and the progress which was made toward resolving these problems:

1. In this health care project's service coverage area, between 10% and 12% of the E.P.S.D.T. eligible children reside with a relative who is neither their parent nor legal guardian. These adults are not able to obtain health care services for the children in their care unless there is an emergency situation which would come under the "Good Samaritan Act". Also, Guardianship procedures are lengthy and expensive. Therefore, going through these procedures is not an effective way of getting health care services for their children.

John was a case in point. He was abandoned by both parents and left at his grandmother's house. The whereabouts of his father was unknown. Repeated efforts were made by the grandmother and State agencies but they were unable to locate the mother. No one within the State Human Service System can or would serve the physical, mental and emotional needs of the child. John was failing in school. Teachers thought it was because he needed glasses. Beside the academic failure, he had other resulting emotional problems in addition to those precipitated by his home life. There was no question as to his needs,

only the consent to be able to use existing services to try to solve his problems.

The Project worked with the Advisory Council members from several agencies including the Juvenile Court and Legal Services to obtain a court order for non-parent relatives to be able to authorize medical screening and treatment for the children under their care. After considerable lobbying by Advisory Council members the Juvenile Court Authorities agreed that, upon sufficient evidence, the judges would sign a "Petition for Authorization to Consent to Screening and Necessary Medical Treatment" in order to obtain health care services.

2. Currently, in the State of Florida, there is no procedure for making Medicaid services available to children in public institutions. The Project's Advisory Council requested a copy of the Florida State Plan to review the procedures for making these children eligible for Medicaid. A copy of the section of the State Plan germane to this issue was obtained and it was determined that the Florida Medicaid Program does cover children who are in foster homes or private child caring institutions. However, it would require State Legislative action either through a separate bill or as an item in the State appropriations bill in order to extend services

to children in public institutions. The Advisory Council worked on a plan to lobby for the necessary legislative changes. Also, Advisory Council members and the Deputy District XI Administrator tried to establish a special research project to extend medical services to those children.

3. It was found that some State workers lacked a clear understanding as to who is eligible for E.P.S.D.T. services. The Advisory Council determined that workers needed further training for all aspects of service eligibility. On the recommendation of the Advisory Council, Supervisors developed a training program to eliminate worker confusion about service eligibility. Workers were made aware of the fact that the following are eligible for E.P.S.D.T. services:
  - a. Children under one year of age.
  - b. Children over eighteen years of age but under twenty-one years of age.
  - c. Mothers of E.P.S.D.T. children who are themselves under twenty-one year of age.
4. Under State law a provider cannot be paid until he has completed all the components of screening. After keeping an initial appointment where screening was not completed some children failed to show up for three or four subsequent appoints. Providers could not be reimbursed for partial services for which they were eligible.

With the assistance of Advisory Council members, the Project Director initiated research to resolve the problem. Providers were contacted to learn the success rate of children for keeping multiple appointments. The loss of revenues was also documented. By analyzing the data and reporting to the screening provider, the Advisory Council was able to convince those providers to complete all screenings and immunizations in one visit. This both benefited the child by providing him with all the services for which he was eligible, and the provider in decreasing the rate of partial screening. Consequently, the number of reimbursements increased. Further, reimbursement to certain providers for vision, dental and auditory services cannot be issued without verification of the health screening. The Advisory Council found and reported a substantial time lag between the date when the child was screened and the date when verification of that screening occurred. This delayed reimbursement had caused a great deal of frustration with the Medicaid system on the part of providers. The staff held meetings with selected Advisory Council members to discuss the issue of how to expedite getting the results of screening reported in a timely manner. Sources of delay were identified, and remedial action was recommended in each instance. Each of these problem areas was tackled in the meeting and a new reporting procedure was developed.



This new procedure subsequently resulted in earlier diagnosis and treatment of problems during screening.

5. The Advisory Council also tackled problems of new treatment and screening procedures. A dentist at the Jackson Dental Clinic requested reimbursement for E.P.S.D.T. services to a child who had serious problems with his mouth and needed orthodontial work which Medicaid does not usually cover. Because of the severity of the child's problem, and the future potential damage to teeth and supporting structures, several members of the Advisory Council worked with the State Medicaid Agency to secure coverage for these services. Also, a dental procedure was identified which would stop excessive salivation, a major problem with some retarded children. Again, Advisory Council members worked to obtain coverage for this procedure.
6. There are a number of retarded children at the Sunrise School in Miami who are eligible for Medicaid services. These children are retarded and are in an intermediate care facility. The problem is they cannot receive treatment for any non-emergency health care problems without first being screened. The Project staff worked with Advisory Council members from the Dade County Health Department in developing a new procedure whereby these children could be screened at the school.

7. The Project was approached by Florida International University and asked if it would participate in the community psychology student intern program. The Advisory Council firmly endorsed the Project's participation in this program. Thus, beginning in June 1978, three Masters level students selected E.P.S.D.T. as the agency in which they wanted to do their field placement. The Project found the student interns to be extremely willing and capable of performing all job tasks assigned to them. These tasks were comparable to those which would be expected to be performed by full-time employees of a similar job level. Examples of tasks performed by the students are as follows: sampling of new client cases; making provider and client contacts; preparing, conducting and verifying data analysis (by hand and through the use of a computer); analyzing statistics and writing reports for the school intervention case monitoring and developmental screening somponents; and working closely with the Project's Management Information System.

#### EVALUATION OF THE ADVISORY COUNCIL

##### The Questionnaire

An evaluation questionnaire was developed by

the Project staff and International Planning Associates. It was sent to all of the Advisory Council members and asked their assistance in answering questions such as those presented below:

1. Did you see your role in the Advisory Council as:  
an individual; an agency representative; or a  
representative of your profession?
2. Did you feel that you received sufficient orientation  
information about the Project as a whole to function  
effectively as a council member?
3. Did you receive sufficient orientation about the  
individual Project components?
4. Did you believe that your greatest contribution to  
the Project as a member of the Advisory Council was  
as a: professional consultant, liaison with other  
agencies serving Medicaid clients; or other?
5. What was your primary purpose for attending meetings  
at the Advisory Council: to exchange ideas and  
information; to learn more about E.P.S.D.T.; or to  
assist in the administration of the E.P.S.D.T. Project?
6. If you were unable to attend two or more Council  
meetings, please indicate the reason.
7. Did you find the staff presentations sufficiently  
informative about the goals, purposes and accomplish-  
ments of the E.P.S.D.T. Project?

8. Did you feel that contact and communication with Project staff were of assistance to you in your work?

#### Responses To The Questionnaire

The Advisory Council members saw their role in the council in different ways. Depending upon their position, some saw themselves as individuals, some as agency representatives and some as representatives from their profession.

Almost all of the members said that they received sufficient orientation and information about the Project as a whole and in each of the project's components.

A large number of the members felt that their greatest contribution to the Project was as a professional consultant. A few felt their greatest contribution was as a liaison with other agencies serving Medicaid clients.

Almost all of the members responded that their primary purpose for attending meetings at the Advisory Council was to exchange ideas and information. Very few felt that it was to assist in the administration of the Project, to resolve interagency problems, or to learn more about E.P.S.D.T.

The greatest proportion of respondents stated that the reason they did not attend meetings was because of

other priorities, conflicts in schedules and they just did not have the time.

They all felt that staff presentations were sufficiently informative about goals, purposes and accomplishments of the E.P.S.D.T. Project

Finally, almost all of the Advisory Council members responded positively that the contact and communication with Project staff were of assistance to them in their work.

#### DISCUSSION

Appointments to the Advisory Council were graciously accepted. Advisory Council members were well informed about the Project. However, attendance at meetings lessened with each successive gathering. Members of the Council devoted their primary energies to their own professions or agencies. The services offered by the E.P.S.D.T. program were only minimally associated with their service area and they quickly saw that they could have little impact on a project so tightly controlled by federal and state regulations and therefore, they would be unable to effect policy changes. The structured meetings became an exercise in futility to many council members, since their contributions could only be made in an advisory consultant manner.

#### CONCLUSIONS AND RECOMMENDATIONS

The Advisory Council meetings were often not well

attended. The members felt that the E.P.S.D.T. program was only minimally relevant to their agencies and/or their positions within the community. They felt that work more closely associated with their own agencies had priority. Further, the members knew they could have little impact on a Project so tightly controlled by state and federal regulations. However, it is important to note that Advisory Council members did exert influence and change in specific local matters. The Council members made their greatest contributions as individuals when called upon for their expertise and influence in resolving health care problems of children.

In conclusion, the Project feels that formal Advisory Councils are not necessary for short-term, special demonstration projects. However, it does recommend that special projects get acquainted with all of the agencies and individuals within their community involved with activities similar to those of the Project. These agencies and individuals should be educated about the Project's goals and objectives so that, if needed, they can be called upon for their particular expertise. These consultants could prove to be an invaluable source of knowledge and therefore could be of great assistance to the Project.

EARLY AND PERIODIC SCREENING  
DIAGNOSIS AND TREATMENT

A Dade County, Florida Demonstration Project

SYSTEMATIC CONTINUOUS EVALUATION  
IN THE MANAGEMENT OF PUBLIC SERVICE PROGRAMS

By  
John T. Wood

Miami, Florida  
July, 1979

## ABSTRACT

### SYSTEMATIC CONTINUOUS EVALUATION IN THE MANAGEMENT OF PUBLIC SERVICE PROGRAMS

By John T. Wood

Evaluation of public service programs serves as the basis for informed decision making. Through the use of current technology, systematic and continuous evaluation designs can be integrated into existing automated management information systems. Systematic continuous evaluation allows program performance data to be compared with established goals and standards at any periodicity whether for internal decision making or for review by external authorities. Not to employ such an approach in conjunction with existing automated information systems wastes as much as 30 per cent of the capabilities of available technology, with resulting loss of efficiency and accountability in public service.

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SYSTEMATIC CONTINUOUS EVALUATION  
IN THE MANAGEMENT OF PUBLIC SERVICE PROGRAMS

By John T. Wood

The degree to which any public service program meets the needs of its service population determines its success. And the measure of that success can only be evaluated through the comparison of program performance to program goals and accepted standards. The diversity of a program's functions, its personnel, and the unique problems of numerous clients make that evaluation a complex task. And to meet the needs of people served, the perspective of an evaluation must be applicable within the constantly changing public context.

The dilemma is that evaluations are most often required by external agencies, funding sources, and political bodies which exert external control on the program. Rarely are evaluations required by a program to serve its own management needs. Only infrequently are program workers allowed to participate in the design of their own evaluation. And seldom is the outcome of an externally imposed evaluation effectively used to meet a program's objectives or the public need.

The usability of evaluation results is imperative.

Decision makers have become disillusioned by academic evaluation treatises which have no direct programmatic applications. Yet, the technology is available. All that may be required for effective evaluation is the efficient collection and review of program management information. Indeed, existing information systems may already provide the vehicle for collecting, analyzing and reporting the evaluative information necessary to measure progress toward achieving organizational goals and objectives. In order to perform this additional task of evaluation, public service information systems usually need little or no modification, especially if they have been developed with a client focus (i.e., they have been developed to handle information necessary to manage the most discrete service element).

Public service programs have evolved throughout history as a result of human need and frequently in response to crisis. Methods of evaluation, however, have not evolved parallel to service programs. They typically are designed after the implementation of service delivery. Thus, decisions affecting most aspects of a program have generally been made without comprehensive information regarding actual needs and available resources. Executive and legislative policies made without adequate evaluative data<sup>1</sup> have also

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<sup>1</sup>Also frequently occurs as a result of court ordered public action.

resulted in failure to establish measurable program goals and objectives.

Evaluation as it has evolved, functions at two levels: preliminary assessment evaluation and in-depth evaluation. Conceptually there has been the third level, that of systematic continuous evaluation.<sup>2</sup>

The preliminary assessment evaluation involves a single, concentrated, investigation which is conducted by an individual, or team of individuals. These evaluators may familiarize themselves with significant aspects of the program or service by studying relevant existing data, identifying accepted standards and program objectives, reviewing records and budgets, and possibly interviewing consumers, agency professionals, and administrative staff, and observing on-site the operation of the program. This type of cursory evaluation is usually oriented to specific problems or issues.

A preliminary assessment evaluation requires only a short time to complete and involves, for the most part, the participation of in-house staff assigned by management to offer recommendations concerning decisions that need to be made. As a result of the rushed and often superficial nature of this mode of evaluation it has come to be referred

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<sup>2</sup> Specification for Evaluation Within the Department of Health and Rehabilitative Services. Prepared by the Department of Health and Rehabilitative Services, Division of Planning and Evaluation, Bureau of Research and Evaluation. January 10, 1974.

to as "quick and dirty". Such a loose array of data collection and analysis efforts draws particular attention to the shallow nature of this evaluative effort.

Where problems and deficiencies of an unusually striking nature are uncovered there are corrective alternatives. Immediately applicable strategies, or the design and implementation of a more precise and controlled in-depth evaluation may be recommended. The evaluative report for the preliminary assessment is often the only information available to serve as the basis for remedial executive or legislative action.

The second evaluative model is designed to either pursue particular problem areas identified through a preliminary assessment or to comprehensively investigate the overall quality and performance of an entire public service program without first going through the preliminary assessment.

Methodological approaches utilized in in-depth evaluations are generally more precise involving both experimental and quasi-experimental designs and may include the use of surveys, intensive interviewing, systematic observations and specially designed research instruments.

The extent of organizational involvement in the in-depth evaluation model is determined by the magnitude and scope of the project, although it will usually require more diverse and intensive involvement than is required by the preliminary assessment model. The evaluative reporting

process for in-depth evaluation frequently identifies special problems and provides detailed analyses and interpretation of those issue areas. Reports may contain both summary types of information for broad decision making purposes, or highly detailed information useful to management in making specific operational changes. Thus, when properly developed, the reports are in-depth.

For the past three years we have observed the application of in-depth evaluation in a major state human service agency. After setting up the academic research design, validating techniques, collecting and analyzing the data, writing the evaluation document, allowing input and feedback -- eighteen months may be invested in a one program effort. The results are so dated that they become all but worthless as a basis for management decisions.

In the years since the in-depth model was popularized, however, major advances have occurred in the state of the art of handling information. These innovations appear to have brought the once unattainable model of the continuous evaluation system into the field of reality. Systematic continuous evaluation may now be ideally suited for use in public service areas such as law enforcement and fire control programs, emergency dial-in numbers, and human service and juvenile justice programs to name only a few. This evaluation model is a perfect tool for application in any public

vice program which has automated the management of its information. Being continuously updated and available, evaluative data can be retrieved on any schedule of periodicity and compared to any predetermined performance standards. This approach can simultaneously point out a program's strengths and weaknesses in a timely and useable fashion. Program performance may be constantly measured against desired outcomes. Performance standards and the requisite data need only be specified by the program developers.

Because of the current widespread use of management information systems, systematic continuous evaluation can be a reality now. The model need only be incorporated within or overlayed on the existing automated system.

Systematic continuous evaluation represents a departure from the "special study" nature of the two previous evaluation models. Its primary purpose is to provide, in an ongoing systematic manner, all available relevant information which forms the basis for rational program decisions. This information might be related to program effectiveness, efficiency, cost benefit, or the quality and nature of the service delivery process. Among all types of evaluation, only the systematic continuous model serves as a built-in integral feedback mechanism in an operating system. Consequently it has the broadest application and greatest usefulness in

the public service management process.

With any automated information management program the omission of a continuous evaluation system wastes as much as 30 per cent of the capabilities of the technology, as well as inefficiently using limited public funds. It is especially appropriate in public service programs to capitalize on such a dual use of automated data systems, even when there is no external requirement to monitor goal attainment.

In Miami, Florida such a continuous evaluation/management information system was experimentally applied to a major public health care program. The Federal and State regulations and professional standards served as the basis for measurement of both accomplishment and shortcomings. With the experimental program it became quite simple, not only to evaluate program performance, but also to evaluate the accepted standards as to whether they were realistic and achievable.

Today's well-informed manager needs timely and accurate information about a program's performance which can be accessed and applied in concert with continually changing needs and goals. Looking back on the evolution of evaluation approaches it appears that given the opportunity to employ systematic continuous evaluation we will progressively move away from the preliminary assessment and in-depth models.

However, until the systematic continuous evaluation system is more widely accepted there will be an unjustified waste of current technology and program funds.



EARLY AND PERIODIC SCREENING  
DIAGNOSIS AND TREATMENT

A Dade County, Florida Demonstration project

CLIENT FOCUS IN CASE MANAGEMENT

By  
John T. Wood

Miami, Florida  
May, 1979

## ABSTRACT

### CLIENT FOCUS IN CASE MANAGEMENT

By John T. Wood

The improvement of service delivery to Medicaid eligible children was successfully accomplished through an innovative and client-focused management package which reflected a 52 per cent reduction in case resolution costs. These results have garnered national recognition with the Dade County E.P.S.D.T. Demonstration Project serving as a laboratory for the development of health and social service program improvements. The Project owes its success to simplicity of format, minimization of forms, absence of data duplication, as well as the collection and use of data primarily for the delivery of services to the client. Not only did the system prove beneficial in the delivery of health care services, but also illustrates its potential application in other government programs and private industry.

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Department of Health, Education and Welfare, Health Care Financing  
Administration."

## CLIENT FOCUS IN CASE MANAGEMENT

By John T. Wood

"Good morning!", and the video computer terminal greets the case manager. She has typed her code number, "EP005", and now enters her name on the key-board.

The video screen responds as she presses a key and lists today's, tomorrow's and past due appointments. With this information she can quickly schedule the day's work activities. All of the planning she has done for her clients is at her fingertips. "I could never keep track of all of these case activities under the old system. I always had a backlog of work."

She begins to cross check the video screen with the weekly printed report. The identification number, the child's name, the type of service, the provider and location, transportation. It's all there. Precise! Accurate!

There are eight clients on today's agenda, and transportation has to be arranged for three of tomorrow's appointments. The system automatically arranged her schedule. She submitted that information on days when she had previously worked with those clients. One client missed an appointment yesterday and the system requires follow-up information. It always cuts through wasted efforts and eliminates unproductive work time.

Characteristically government human service systems suffer due to excessive, complicated and extraneous paperwork, inaccessible data, and case loads larger than most worker's capabilities. Arranging the day's schedule, the clients, providers, transportation, etc., would normally take a couple of hours -- assuming data was accurate and accessible. Time efficiency and economy, as described here, are only one of the productive results of client focused automated case management.

The Dade County Florida E.P.S.D.T. (Early and Periodic Screening, Diagnosis and Treatment) Demonstration Project began developing and assessing the effectiveness of an automated client focused case management system. The work started three years ago under a grant from the Health Care Financing Administration. E.P.S.D.T. is a national program for Medicaid eligible clients under 21 years of age. It seeks to effect preventive health care as well as early detection and treatment of physical, mental and emotional problems. The Demonstration Project served a pilot group of 2,800 clients, managed by six specialized health service case workers.

With the automated client focused information management system, the case manager no longer begins a day encumbered by the responsibility of pulling files stashed in cabinets and sorting through his own notes for appointments and other reminders. He is not overwhelmed with paperwork which is burdensome at the time of recording and obscure at the time of recall. Not to mention its lack of value if he is unable to

access the data. Now the information management system bears the burden of planning the case manager's daily schedule based on client data he has previously supplied. The case manager's energies are freed so that he might better serve the needs of his clients.

The Dade County Demonstration Project also employs a specialized computer clerk for morning and afternoon hours specifically to enter data. Errors were reduced to less than one and one-half per cent.

The system provides the detailed reminders and work aids necessary in managing a client oriented health care program. Daily activities are scheduled through a necessary "summary by exception." This is essential since he deals with an average of no less than 100 open cases at any one time. Each morning when the case manager signs in on the computer terminal he is provided with a summary of cases to be worked on that day, as well as the next day. If the case manager wishes, he may update his weekly printout schedule. Past due appointments are identified on another transaction line so they are not left to lag at the expense of the client. Cases awaiting action are kept up-to-date through timely service planning.

The case worker is essential to the successful implementation of any human service system. That individual's accomplishments make the program successful in large part. Therefore, the responsibility for improved case management must

and has been placed on the case manager. The case manager functions with the support of the client information management system. This system, in both its format and content provides the case manager with the necessary tools to accomplish this job. Hence his personal contributions are vital to the function, growth and success of the system. It is "a system whose primary purpose is to select data pertaining to health services and transform them into the information needed for decision making by organizations and individuals who plan, finance, administer, provide, monitor and evaluate health services." (Murnaghan 1974:603). Thus, the case manager is substantially relieved of a great deal of paperwork -- paperwork which is totally generated by federal and state reporting requirements.

The key to the automated information system is to eliminate as much paper and paperwork as possible. Such a system is more efficient than any individual or group of individuals in data handling capabilities. It affords immediate access to all information with emphasis on clarity, simplicity, and direct usability.

"To be viable, a medical information system must be organized, acceptably legible, inexpensive and useful -- that is the...(case worker) can find quickly the information he needs." (Brandjs 1975:693) Its simplicity is the objective for inacting effective information management. Complex systems tend to fail while simple ones endure. In this system the format is always uniform and information is thus easy to

find and use. It is not hidden in piles of hand written case notes.

The conceptual elements of the system provide for easy comprehensible application. First, its simplicity makes it easy to enter and retrieve data, train personnel, and eliminate errors. Secondly, the minimization of hand written forms and reduction in the duplication of data entry produce a more efficient use of time. The computer can duplicate and identify data requirements in fractions of a second. The Demonstration Project case manager's paperwork requirements have been reduced to three forms. A registration form is used to record cases, a transaction form to describe case activity, and a time sheet to allocate daily work activities among cost categories. Lastly, data collection and use is designed primarily to serve the client operations, but can be aggregated at any level for program management, meeting local, state and federal reporting requirements. This information is available for (1) operations, (2) management, and (3) planning and evaluation functions (Gaus 1973:51).

"Input documentation" is hence greatly simplified. Even the registration form for the client and all family members is uncomplicated and each element of data is recorded only once -- no duplication.

Critical to the efficiency of the system is: (1) the pre-service and continual in-service training of case manager,

(2) daily updated resource information, and (3) the availability of the case management information system to support the worker's efforts. Human service systems historically have a high rate of turnover in workers, providers and clients. Thus the simplicity in training new workers, locating providers and keeping track of clients is crucial.

To insure the confidentiality of client data, the E.P.S.D.T. information system is programmed for security. That is, once the entry has been made it cannot be eliminated, the case manager cannot manipulate the records to make his work look more or less productive, nor can recorded cases be accessed by inappropriate personnel. The access of client data can be accomplished only through a hierarchy of codes taught to various levels of personnel on the basis of a need to work with that data. "Preparation of such guidelines may cause some inconvenience and expense initially, but is a necessary step in achieving: (a) understanding of and subsequent confidence in the new technology by the...(client), and the...(case worker); (b) better care for the ...(client), (c) better information for health policy and planning; and (d) protection of the individual's interests of privacy and confidentiality." (Beggs-Baker 1974:

"The managers of...(human service systems) will need certain information in order to measure the performance, effectiveness, and productivity of the whole organization, as well as the individuals within the organization." (Gaus 1953:51)



Periodic printed systems reports for operations, management, and evaluation are generated at the required intervals dictated by the particular program. In the case of the E.P.S.D.T. Demonstration Project, weekly printouts post future appointments, follow-up tasks, and individuals' health problems. The system monthly posts time accounting and cost calculation data for the management of unit performance. The evaluation program quarterly summarizes the work quantity and quality indices and compiles that data on an annual basis.

When any individual knows that his efforts will be visible to himself as well as his supervisor he tends to do a better job. This visibility stimulates greater interest in successful work outcomes, as was evidenced by the Project's case managers.

Data compiled in the last two years is initial evidence of the system's positive results. A comparison of outcomes between a sample of clients served by the State of Florida E.P.S.D.T. Program and a similar sample served by the Project indicate the effectiveness of client focused automated case management.

Of those participants in the State program, 36 per cent were screened, while 67 per cent were similarly served by the Dade County Project. Furthermore, the rate of successfully resolved cases was 93 per cent for the Project as opposed to only 44 per cent for the state system. At the same time the cost per successful case resolution was reduced from

\$54.00 to \$26.00 through the Project's client focused automated case management system.

The problem has been to improve service delivery to eligible clients. This was successfully accomplished through the Project's management package. Further, it was accomplished with a 52 per cent reduction in management costs. These results have garnered national recognition, with representatives of other government sponsored programs traveling to Miami to personally observe, learn, and apply the system.

This client focused automated case management system by no means provides an ultimate solution. For the control of human services, however, it has proven to be a highly workable, realistic, feasible and cost effective tool. Hence, the Project encourages the expansion of its experience to this (E.P.S.D.T.) and other health and human service applications.

The system is a model which is applicable to people, their industry and their needs. This model may just as easily be applied to a foster children or juvenile justice program, as well as to a major industrial personnel program.

The success of the Project's management information system is owed to simplicity of format, minimization of forms, absence of data duplication, and the collection and use of data primarily to manage client services. And the "plus factor" in the proven system is that its broad application applies to any public or private industry dealing with the management of service to people.

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EARLY AND PRIODIC SCREENING  
DIAGNOSIS AND TREATMENT

A Dade County, Florida Demonstration Project

EFFICIENT CASE MANAGEMENT AT HALF THE COST

By  
Neice Schreiber

Miami, Florida  
August, 1979

E.P.S.D.T. AND JOHN WOOD

EFFICIENT CASE MANAGEMENT AT HALF THE COST

By Neice Schreiber

Caseloads are well defined and up-to-date. Paperwork has been virtually eliminated. Obtaining the daily work schedule is only a matter of touching a button. The same technique calls up information on past and future client appointments and schedules. Data to evaluate client or program goals can also be accessed in seconds for use within the local unit, or on state or Federal levels. Worker input has played central role in the design of this system and now it is the single most valuable case management tool at their disposal. Information has been simplified, most forms have been eliminated and reports have been reduced to the absolute minimum necessary to manage a client case.

This is not a fictionalized story of a human service management program, but an accurate description of the successfully functioning Dade County Early and Periodic Screening, Diagnosis and Treatment (E.P.S.D.T.) Demonstration Project. The Project evolved as a result of the creative management work of John Wood and his staff, and their concern for the well being of Florida's children.

The Project concept began in 1975 when current Project director John Wood was directing the development of a School Health Services Plan for the Florida Department of Health and

Rehabilitative Services in Tallahassee. The most notable aspect of this plan was the interest the State of Florida exhibited in screening and follow-up care. This plan earned the attention of E.P.S.D.T. administrators in the Department of Health, Education and Welfare (HEW).

John Wood was subsequently approached by DHEW and offered the potential of funding for the creation of another plan which would overcome and improve administrative and management problems within the E.P.S.D.T. Medicaid program.

"Our school health services plan made it clear that we had envisioned a necessary total program of screening and treatment and the necessary tracking devices to make sure service plans were actually carried out," said Wood. "We were well aware that screening without the mechanisms to insure follow-up treatment was an ineffective use of resources. Project officers in the special projects branch of DHEW recognized the validity of this approach and were willing to support an effort to demonstrate its effectiveness."

When the Project proposal was initially submitted it was designed as a case management program which included an "outreach" component. It was this component which principally caused the Department of Administration to refuse funding. The budget director termed providing additional outreach services as, "...beating the bushes to find clients for whom we may not be able to provide services." His feeling was that it would be more prudent to serve those clients who already had been identified. The Project proposal was then

revised to exclude the outreach component. With this and other modifications funding was approved in July, 1976.

The Project was based in Miami in HRS District XI and the Deputy District Administrator was charged with the responsibility of its staffing. John Wood was recruited to manage Project activities. He had to design and implement systems which would meet his criteria of effective client focused case management.

In developing that case management system he selected a novel approach. He sought input from the direct service workers who were currently managing E.P.S.D.T. cases. As a result of their input several conclusions were reached. First, it was not feasible to require workers to complete more forms. In fact it would probably improve services to consolidate some currently collected information and eliminate unnecessary and duplicate recording. Secondly, the information collected and stored in a case management system had to be useful to direct service workers. Otherwise they would have no vested interest in the quality of timeliness of the information they collected. The more any worker has to rely on the information he/she collects and records, the more careful he or she is to see that the information is correct and appropriate. Finally, the collection, storage and retrieval of case data must be simple. There is tendency in the development of management systems toward the use of complex codes and complicated formats

for recording and reporting client data. But these complexities add nothing to the smooth operation or longevity of the program. Indeed, we have seen complicated systems fail time after time, while simple systems endure. Unfortunately, this has been a hard lesson to learn.

Over a six month period, from July to December, John Wood developed project agreements with public and private health providers in arranging for services to be subcontracted. A specialized staff, from service workers to a neuro-behavioral specialist, was hired, organized and trained where necessary. Educational programs were begun. Wood designed the automated client focus management information system for the use of case workers.

During 1977 implementation was begun on the case management aspect of the Dade County's E.P.S.D.T. Demonstration Project. Wood and his staff also began other research activities and addressed necessary issues of interest to the funding agency. These issues included developmental screening and assessment, collaboration with public schools, interagency collaboration, and specialized services to older children.

Within a year the project was providing direct services for over 2,000 Medicaid eligible children and had tracked the progress on cases of another 1,000 Social and Economic services clients as a basis for comparisons.

After the first six months of operation several



modifications were made in the management information system to reflect client and worker feedback. These detail design changes were to streamline the system and provide for more timely work reports.

A series of on-line case status reports were developed so that service workers were constantly aware of any cases needing their attention. These reports highlighted, among other things, cases with planned services to be delivered in the immediate future, cases with planned services to have been delivered in the past and needing follow-up, and cases which were still active but for which no future services had yet been planned. The system monthly posted time accounting and cost calculation data for the measurement of individual and unit performances. The continuous systematic evaluation component provided data as called for, and quarterly summarized the work quantity and quality indices and also compiled that data on an annual basis.

Human service systems historically have a high rate of turnover in workers, providers and clients. Thus the simplicity in training new workers, locating providers and keeping track of clients was crucial and this accomplishment largely contributed to the success of the Dade County Project.

When any individual knows that his efforts will be visible to himself as well as his supervisor he tends to do a better job. The visibility stimulated greater interest

in successful work outcomes, as was evidenced by the Project's case managers. For many case workers, this represented the first time they knew the exact size of their caseload or their rates of successful case completion. In fact it was the first time they had a clear definition of an "open" case or a "successful" completion.

As a result of the midstream revision case backlogs became virtually nonexistent. The Project was able to demonstrate that a case management system developed on simplicity and worker input and based on the minimum information necessary to effectively manage the services provided to one client's case could also provide all the necessary operating, management, compliance, and evaluation data required of such a program.

With the client focused automated information management system, the case manager no longer begins a day encumbered by the responsibility of pulling files stashed in cabinets and sorting through his own notes for appointments and other reminders. He is not overwhelmed with paperwork which is burdensome at the time of recording and obscure at the time of recall. Not to mention its lack of value if he is unable to access the data. Now the information management system bears the burden of planning the case manager's daily schedule based on client data he has previously supplied. The case manager's energies are freed so that he might better serve the needs of

his clients.

Data compiled in the last two years is initial evidence of the system's positive results. The problem had been to improve service delivery to eligible clients. This was successfully accomplished through the management package designed and implemented by John Wood. Furthermore, it was accomplished with a 52 per cent reduction in management costs. These results have garnered national recognition, with representatives of other government sponsored programs traveling to Miami to personally observe, learn and apply the system.

EARLY AND PERIODIC SCREENING  
DIAGNOSIS AND TREATMENT

A Dade County, Florida Demonstration Project

IN RESPONSE TO  
DEVELOPMENTAL REVIEW IN THE E.P.S.D.T. PROGRAM

By  
Beverly Root, M.S. and John T. Wood

Miami, Florida  
August, 1979

ABSTRACT

IN RESPONSE TO  
DEVELOPMENTAL REVIEW IN THE E.P.S.D.T. PROGRAM

By Beverly Root, M.S. and John T. Wood

Developmental Review is a program proposed by the American Association of Psychiatric Services for Children, Inc. for the governmental guardianship of all children in the United States. It assumes responsibility for their physical health, emotional, intellectual, and social growth. Its purpose is to promote the strengths of children and their families to cope with the various tasks of living; the prevention of specific developmental disabilities, and early case finding. It is an idealized concept that is impractical because it does not consider the lack of fund, technology and personnel.

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Department of Health, Education and Welfare, Health care  
Financing Administration."

IN RESPONSE TO  
DEVELOPMENTAL REVIEW IN THE E.P.S.D.T. PROGRAM

by Beverly Root, M.S. and John T. Wood

Developmental Review is a program proposed by The American Association of Pyschiatric Services for Children, Inc. for the governmental guardianship of all children in the United States (Developmental 1977).<sup>1</sup> Every individual, from the moment of birth through age 20 would be afforded the benefits of acquired and applied knowledge. Each child would be a special part of the nation's Developmental Review System, and would be reviewed at regular intervals for physical, emotional, intellectual and social growth status. The results of these reviews would serve as guides for referrals for either remediation of problems or enhancement of outstanding abilities.

Since our nation's greatest resource is its people, the wealth of that resource is determined by the combined mental, physical, and emotional health of each person. It became a logical evolution that a system be formulated and proposed to

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The American Association of Psychiatric Services for Children, Inc. Developmental Review in the Early and Periodic Screening, Diagnosis and Treatment Program. U.S. Department of Health, Education and Welfare, April 1977.

Implement this concern for the care of every individual.

The AAOSC believes that "the national mandate for Early and Periodic Screening, Diagnosis and Treatment (E.P.S.D.T.) may better be stated by a change in name to E.P.S.R.T.: the "R" representing a developmental review rather than screening" (Developmental IX). It is a proposed system of health care which (a) promotes the strengths of children and their families to cope with the various tasks of living, (b) is involved in the prevention of specific developmental disabilities, and (c) treats the child rather than the disease or non-competences of the child (Developmental, 1977). It looks toward the eventual well being of the nation's population to yield citizens with productivity and creativity which would advance each individual to his fullest potential.

Developmental Review contains all the components of health care we would like for all people; however, at this time in our nation's economic and technological evolution it is an impossibility, an impracticality, a grandiose notion. But without the goals there is nothing to implement, no direction for growth, and subsequently nothing to try to achieve. Thus the idealized format for Developmental Review was recommended by the American Association of Psychiatric Services, Inc., to be initiated in the Early and Periodic Screening, Diagnosis and Treatment Program (E.P.S.D.T.).

As a family focus program, Developmental Review would

strive to promote the positive aspects of every family and its members. There need not be a problem with the children in a family in order for providers to offer guidance. An exceptionally bright child might require attention as special as those with learning disabilities, intellectual disabilities, or emotional or physical disorder. The client would be treated to productively manage both positive and negative aspects of personality and body.

Development is complex. Its components are as limitless as the nature and range of people, from their genius to their ignorance, from the order to the disorder of their lives. Hence no singular, simple test or measure can be formulated as a comprehensive review model. Developmental Review does not advocate only one test, but many different tests by paraprofessionals and professionals at various levels appropriate to the client's needs.

However, the ideal review is one which can and should result from the observations and knowledge of adults. A parent or teacher educated and sensitive to the indicators of under and over achievement can be just as effective in promoting the total development of a child as the costly, unrealistic and unattainable concept set forth in Developmental Review.

No one is as close and consistent an observer of a child's development as his parents or guardians. Their



education to the needs and concerns of their own children can prove to be a more workable goal than the other described concepts. A parent should be educated to realize that a "nutty kid", a poor reader, an incorrigible brat, a child who doesn't pay any attention, and other such labels of character may all be readable signs of disorder or dysfunction. Similarly, the same parents ought to know the needs of children who are said to be excellent in the academic basics, the fine arts, or whatever their endeavor.

Developmental Review considers biological, psychological, and family dimensions coupled with environmental, social and cultural elements in a child's life (Developmental 1977). It is a system set forth in stages, from birth to adulthood.

The Developmental Review Program begins with the birth of a child and proceeds through Stage One. If there is an indication of a problem/s in Stage One, recommendations may be made to Stage Two and/or Stage Three.

As established by Developmental Review guidelines, the process would begin with an in-hospital perinatal pediatric examination which would be supplemented with appropriate additional screening and diagnostic instruments as needed. Each newborn ought to be entered into a birth registry and scheduled for periodic home visits. "Public health nurses, pediatric nurse assistants, developmental psychologists, and other professionals with special training might serve as home visitors for the purpose of providing special services

to the family" (Developmental 27). Within the physical care aspect of Developmental Review physical screening, such as metabolic and blood tests, ought to be done in the home within 10 to 14 days of birth. Frequency of home visits are to be determined by the reviewer in evaluating child and family needs. The home visits will continue until the child is engaged in another system which provides health care, or, until agreement with the physician is reached that the child is at no risk.

The intrusion of Developmental Review into the home has an aura of "Big Brother". Although a family may have agreed to the Developmental Review system and all its aspects, the constant monitoring by home visistors of their personal home life might soon be felt to be threatening invasion of privacy. However, as proposed by the authors of Developmental Review, it is an optional service which may be refused at any time by the client.

#### Stage One

Stage one of Developmental Review sets out to maintain physical, psychological and emotional evaluations. Adequate regular pediatric examinations will include factors from the biological, psychological, family and environmental/social/cultural dimensions.

The second area to be covered in Step One is a parent assessment of the child. This would be developed as a

structured interview or inventory administered by a paraprofessional. The structured inventories are to be given over time to permit review or changes in the child to be observed. The parent's report (interview and inventory) must be interpreted by a professional for referral to Stage Two.

A problem with parent assessment is that whenever a professional is required for interpretation or diagnosis, the cost of the report increases, and the use of the limited numbers of available professionals is further taxed. Another difficulty is that it presupposes the parent is observant, literate, rational, and articulate. A program to educate the parents and teachers to be sensitive to the indicators of developmental assessment would be required before parent assessments of the child would be of value.

#### Stage Two

On the basis of the health examination and the considerations of professionals who interpret the parent's reports, a determination would be made whether a child would be referred to Stage Two. The Developmental Review in the F.P.S.D.T. Program (1977) states, "In Stage Two there would be direct structured observations of the child's functioning. This might be accomplished using a variety of broader developmental screening inventories or instruments that are currently available. Paraprofessionals might be trained to administer

these screening inventories, if interpretation of results and constant monitoring of reliability were the responsibility of more highly trained professionals" (Developmental 13-14).

Standard pediatric examinations which are predominantly physical/biological are available under Medicaid. To add the other dimensions to the regular visit would add an indeterminant cost per visit depending on precisely what is to be done. A significant weakness of Developmental Review is its lack of specificity. It does not specify what type of para-professionals or professions would be required or which developmental instruments are recommended. However, The American Association of Psychiatric Services for Children, Inc. does state that it does not wish to be specific so that each locality can utilize available resources. But then is there equality of care? However, if there is centralization with community implementation, how can there be standardization of care?

Therefore the AAPSC felt no single test or instrument could be recommended, "because none could possibly be used for the adequate accomplishment of Developmental Review for all ages and functions. Each review must include multiple assessment procedures tied to the age of the child and the dimensions to be assessed" (Developmental VIII). "It is clearly necessary that we do develop instruments in order that the Developmental Review may be carried out most adequately" (Developmental 17). Yes, it is clear that new instruments

need to be developed and evaluated to aid in screening, diagnosis, and treatment in the developmental area.

### Stage Three

Stage three of Developmental Review also includes the four domains previously listed: biological, psychological, family and environmental/social/cultural. Depending from which domains the family was referred the following would occur.

The diagnosis of the biological aspects would be performed by a physician and might entail a thorough neurological assessment as well as an extensive physical examination. The diagnosis of the psychological aspects, depending on why referred, might require a psychoeducational specialist, school psychologist, learning disability specialist, special educationalist, pediatric neurologist, or any other appropriate specialist as required.

Is Developmental Review a conceptualized theory seeking to find a Utopia which doesn't and can't exist? It formulates a system of human health care and concern which seems unachievable because of the myriad of variables of the human condition and human characteristics. Developmental Review, in its objective to be inclusive of all children in the United States, does not pay full attention to the limited capacities of existing funds, personnel and technology. Yet the positive benefits of its idealism, and flexible suggested resolutions warrant a hope for eventual fulfillment.

EARLY AND PERIODIC SCREENING  
DIAGNOSIS AND TREATMENT

A Dade County, Florid Demonstration Project

DEVELOPMENTAL ASSESSMENT:  
THE DETERMINANT FOR CORRECT REMEDIATION

By

John T, Wood and Michael Hansen, M.S.

In Collaboration with

Ruth Meltzer Pinnas, Ph.D. and Fred Seligman, M.D.

Miami, Florida

June, 1979

ABSTRACT

DEVELOPMENTAL ASSESSMENT:

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A public health screening model proved to be a means for accurately detecting and referring children with developmental problems for diagnosis and remediation. The Dade County, Florida Early and Periodic Screening and Testing (E.P.S.D.T.) Project demonstrated that such a screening model could effectively meet the criteria of accuracy, time efficiency and cost economy. While no single instrument is recommended, a number are available and should be tested for their ability to meet the need for early identification of developmental disabilities.

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Institutionalization is the prognosis. Juan attacked his brother with a machete. At age 11 he can speak neither intelligible English nor Spanish; and in bilingual Miami his bizarre behavior had been attributed to a "language problem" by parents and teachers. They labeled Juan a "problem child". In reality he had become psychotic.

The erratic outbursts and the language deficits were an unheeded sign of neurologic dysfunction and epilepsy. Both at home and school Juan had been consistently punished for the neuro-behavioral deficits associated with epilepsy, neurologic dysfunction and his reaction to a severely disturbed home life.

"Many of his problems might have been prevented, had he been diagnosed and treated much earlier," said Dr. Ruth Pinnas, a neuro-behavioral specialist. "The seizures might have been controlled with medication, special education and through intensive psycho-therapeutic intervention with the entire family. All this would have met his needs and, perhaps, avoided institutionalization."



Although learning disabilities are relatively common, and many can be successfully remediated, when undiagnosed and untreated they can also lead to a wasted life.

For most of his 45 years George Andrews has been in and out of institutions. When on the "outside" he lives with his mother. The diagnosis is paranoid schizophrenia, and a dependent personality. He is non-violent and his intelligence is average, but "he is doomed for life, and unnecessarily so," said Dr. Pinnas. "Our testing found Mr. Andrews has a severe auditory learning disability. He is not receptive to the sounds of language. His disability has been described as 'words are thrown in the air and let fall...'. "

These people have confused auditory perception and therefore cannot understand or express concepts. Their speech consists of words, and does not express ideas clearly. It sounds like "loose associations". It sounds bizarre, but it isn't. If appropriately screened early in life, and properly diagnosed, this disability often can be remediated and normal, productive lives result.

Child psychiatrist Dr. Fred Seligman described the case history of Roger, an eight year old boy disabled by emotional problems. "He misses the absent father he has never met, to the point of having vivid fantasies about his father's visits. Roger's mother works and is rarely home, so he is being brought up by a grandmother who strikes him frequently. There isn't

a book, a game, or a toy in the house. He and his mother sleep in the same bed. The child is accutely depressed and can't concentrate in school."

"Not all families are amenable to change," said Dr. Seligman. "Yet with others the total family can be worked with and helped."

Developmental disabilities, whether manifested as intellectual disabilities, learning disabilities, or emotional disorders, interrupt and most often prevent the child's healthy mental growth toward adulthood. Of the 20 million Americans under 20 years of age the Department of Health, Education and Welfare reports that four hundred thousand have some single kind of developmental problem or an array of those problems. Yet only up to three per cent are identified as developmentally disabled in the screening of indigent children.

The dilemma is how to find, diagnose and treat these children before their problems become catastrophic.

With recognition of this large and complex problem, Dade County, Florida's Early and Periodic Screening Diagnosis and Treatment (E.P.S.D.T.) Demonstration Project set out to model a system for separating the high risk children from the larger number of apparently normal children. High risk children could then be diagnosed and, if a problem confirmed, referred for remediation. This initial assessment of risk must be accomplished at a small cost per child or it would never be feasible to offer such a program for large numbers of children.

The model of public health screening served as an

example. The Tyne test for tuberculosis looks for positive test results in order to eliminate negative outcomes. The Pap smear evaluates uterine cervix cell irregularities of all types in order to rule out healthy patients and recommend further testing for diagnosis if test results are positive. The Snelling chart is a screening procedure, and does not accurately assess the nature of the problem. However, it does signal that something is wrong with the subject's vision. Vision screening, like other screening procedures dealing with physical disabilities, is not as accurate as the diagnostic instruments, but it does yield valuable information about the probability of the existence of a disorder.

Using the model of physical health screening as a paradigm for examination of a large population of apparently normal children, E.P.S.D.T. reviewed and tested screening procedures for developmental disabilities. Of those screening procedures the Psychological Screening Inventory (PSI), developed by Dr. Ruth Pinna, proved to be superior in accuracy, time efficiency and cost economy. In eight minutes a trained para-professional can administer the PSI. It is based on a psycholinguistic communications model and indicates if a child has difficulty in sensory intake. In other words, the PSI is a series of verbal task requests which test auditory, visual and other senses. But the test does not determine the specific nature; whether it is a learning disability,

intellectual disability, or an emotional disorder.

The PSI is a screen, and only a screen, which "selects out" children with the probability of developmental problems. It seeks to select as many children as quickly and efficiently as possible who require further consideration. If the instrument is conservative, it will "over refer", as not all who are selected will be diagnosed as having developmental disabilities. But of those who do have problems, none will have gone undetected.

Both the child psychiatrist, Dr. Fred Seligman, and the neuro-behavioral specialist, Dr. Ruth Pinna, agreed that screening of all children is of vital importance to the individuals, their families, and the public health care system. "Screening can detect and may ultimately prevent any neurological problems from developing, emotional disorders, and perhaps institutionalization in mental hospitals and prisons", said Dr. Pinna. "It can enable those who are less acutely affected to maintain a job, a family -- to lead normal lives."

"Even a simple form to be filled out by parents, or the observations of teachers could be an improved method to find more children with developmental problems," said Dr. Seligman. "But not all parents or teachers have the desire or knowledge to cooperate, least of all the ability for referral for diagnosis."

Dade County's E.P.S.D.T. Project demonstrated that for less than one dollar per child a trained para-professional,

working full time, could screen as many as 7,750 children annually.

A well trained para-professional can screen and refer the child for assessment simultaneously. "Parents trust the person in authority," said Dr. Pinnas. "But the referral for assessment, if incorrect, can be just as dangerous as no assessment at all."

There have been cases of an inappropriate label, such as "retardation" when the child's disability is speech, auditory or visual reception. Although an I.Q. test may have been given, and the child found to be of average intelligence, without correct referral and diagnosis of the problem the efforts are of no value. If the person in authority is inadequately educated and trained the danger of inappropriate and ineffective treatment results. Shuffled from agency to agency without realizing improvement in their child, parents become frustrated and disbelieve that any remediation at all is possible. Thus, the screening is totally worthless if the child does not get the benefit of correct assessment for referral and follow-up treatment.

The para-professional has to be educated to the types of developmental disabilities signaled by certain test responses as well as the direction to take for referral. Those specialists to be considered and consulted for assessment are social worker, speech pathologist, learning disability specialist, clinical psychologist, neuro-behavioral specialist,

child psychiatrist, general practitioner, pediatrician and/or the neurologist. And the specialists themselves also must have awareness of the range of knowledge and therapeutic benefit of the other disciplines.

There are those children who can't be diagnosed even after referral, for many don't fit into the body of knowledge which has created existing categories for diagnosis and treatment. Still their assessment is of great importance since it gives surrounding adults the opportunity to monitor and guide the child as best as possible, according to Dr. Pinnaas.

Both the child psychiatrist and neuro-behavioral specialist agreed that parents, teachers and the family pediatrician usually aren't familiar with indicators of developmental disabilities, and rarely do they have the expertise for their assessment and remediation. It is not appropriate to expect them to bear the entire burden for a child's disabilities. It has to be provided by other sources.

The Dade County E.P.S.D.T. Project has demonstrated that screening for developmental disabilities is an effective approach to the early detection and treatment of problems. The Project further demonstrated that it can be done fulfilling the requirements of accuracy, time efficiency and cost economy. The Psychological Screening Inventory is not being offered as the only solution for a screening device for developmental disabilities. It is a model which allows and encourages growth and improvement.

EARLY AND PERIODIC SCREENING  
DIAGNOSIS AND TREATMENT

A Dade County, Florida Demonstration Project

EARLY CHILDHOOD SCREENING:  
A NECESSITY IN THE DETECTION OF DEVELOPMENTAL DISABILITIES

By  
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Miami, Florida  
June, 1979

## ABSTRACT

### EARLY CHILDHOOD SCREENING:

#### A NECESSITY IN THE DETECTION OF DEVELOPMENTAL DISABILITIES

By Beverly Root, M.S. and John T. Wood

Early childhood screening for developmental disabilities affords the opportunity for remediation of problems which may ultimately result in hardship on the individual, his family and the nation's human service system. The Dade County, Florida E.P.S.D.T. Demonstration Project found accurate, low cost and time efficient screening both feasible and effective. After reviewing and evaluating various screening techniques, the Psychological Screening Inventory proved to be an effective device in "selecting out" children in a large population who have a high probability of developmental disabilities.

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## EARLY CHILDHOOD SCREENING

### A NECESSITY IN THE DETECTION OF DEVELOPMENTAL DISABILITIES

By Beverly Root, M.S. and John T. Wood

Just as women are routinely checked for cancer with a Pap smear, and children checked with an eye chart for visual acuity, early screening and detection of developmental disabilities can provide the opportunity for the prevention of mental and emotional problems. If undetected, these problems can become debilitating in adolescence and adulthood.

Children's problems are often accepted, rationalized, or go undetected. This is owed to the subtlety of some problems, their manifestations which range from disruptive behavior to introversion, lack of awareness by adults, and a multiplicity of other factors. Yet the existence of learning disabilities, intellectual disabilities and emotional disorders persist in a substantial number of children. These are grouped as problems of development or development disabilities.

Developmental disabilities may prevent sensory intake from occurring in a usable and productive fashion. Printed words may swim around a page, sounds become jumbled, speech garbled, dialing a phone an impossibility...the types of human dysfunction are as extensive as the errors of nature. Some problems can be identified and treated. Some cannot. But all children can and must be screened so that, at least,

they can be provided monitoring and remediation to the extent that current technology and manpower allow.

After considering alternative methods, a federally funded research project in Dade County, Florida demonstrated that screening of large numbers of children can be successfully accomplished with economy of dollars, time and manpower.

The effects of a screening program for developmental disabilities could be substantial. Nearly 17 per cent of all children within the United States suffer from some single type, or combination of developmental disabilities according to the Department of Health, Education and Welfare (Frankenburg and North, 1974). The majority of these cases go undetected (Maraville, 1977). Using existing Federal guidelines the Florida Department of Health and Rehabilitative Services screened 68,172 eligible children during the 1977-1978 fiscal year. Only 382, or less than one per cent were defined as having developmental disabilities (Florida Report, 1978). The disparity in HEW findings and the Florida experience is owed to the fact that screening administrators were only required to report mental retardation, seizures, and other neurological problems. A myriad of other disabilities was not considered, categorized, detected or reported.

Indeed the low rate of detection may be further attributed to the lack of comprehensive screening devices and models which are accurate, inexpensive and easily and

effectively administered to a large population.

Public health severely needs a routine screening procedure for the identification of developmental problems. In order to be effective such a screening device must be administered at a low cost by para-professionals employing an accurate instrument. To this end the current research project reviewed a number of devices, finally selecting two as working models. One represents a new vogue in electronic techniques; the other a more traditional model. At the time of selection, both the "Zero Input Tracking Analyzer/Auxiliary Distraction Task" (ZITA/ADT) and the Psychological Screening Inventory (PSI) potentially met the criteria of accuracy, (2) time effectiveness, and (3) cost economy.

Physical health screening (such as the Tyne test or the Pap smear) is done with the belief that the early detection of disease will lead to appropriate diagnosis and treatment which, in time, will minimize disability or eliminate mortality from the disease. Similarly, childhood screening for developmental disabilities, whether they are physical and/or emotional in origin, afford the opportunity for remediation of the identified problem.

Screening does not intend to diagnose, nor does it set out to establish a therapeutic methodology. Screening intends to "select out" those children which may have a high risk of physical or emotional dysfunction (Thorner and Remein, 1967). Screening signals the test administrator that further consideration in the form of diagnosis may be called for.

Not being able to respond to a verbal test question may indicate that the child has an auditory problem, a speech problem, an emotional problem, or that he may lack concentration ability...but it does not distinguish among problems. Specifically a "positive" screening outcome indicates that the child is likely to have an abnormal condition. Having thus identified probability of a disorder the child is then referred for the more costly and time consuming process of diagnosis. It should be noted that although diagnosis is more costly it need only be performed on those children who have a positive screening outcome.

In evaluating the two developmental screening tests three conditions were imposed by the research design.

(1) a large number of children would be assessed separately with the ZITA/ADT and the PSI screens, (2) trained para-professionals would be used exclusively, and (3) the para-professionals would have the capability of administering both tests.

Subjects for the study were given a complete diagnostic evaluation for developmental disabilities, and were then screened with each of the two selected modalities. The outcome of each of the screening tests was compared to the result of the diagnostic evaluation.

The ZITA/ADT and PSI screening tests were evaluated on the capability of each to conform to selected traditional standards for a public health screening device (Armistead and

Crawford, 1974). Maximum "specificity" and "sensitivity" were looked for. "Sensitivity" is the ability of a test to give a negative finding when the person tested truly has the disease under study. "Specificity" is the ability of a test to give a negative finding when the person tested is free of the disease under study. Also, minimum "overreferral" and "underreferral" are required. "Overreferral" means that excessive numbers of individuals have been screened as having the probability of a disorder. "Underreferral" means that the screening test did not find all of those with such probabilities. "Phi" is a non parametric coefficient of correlation between the screening outcome and diagnostic results. It ranges from plus one (+1) indicating perfect correlation to minus one (-1) for a perfect negative correlation, and zero (0) for zero correlation (Armistead and Crawford, 1974).

Personnel administering the screening tests had no knowledge of the diagnostic evaluation results, nor were they aware of the outcomes of the other screening test, the subjects' school performance background, nor other indicators of developmental disabilities. The study was designed in this manner to eliminate the systematic variance known as "tester effect."

The screening instruments, the ZITA/ADT and the PSI differ radically in that the first test is administered with the aid of an electronic mechanical device, while the latter is administered verbally.

The Psychological Screening Inventory is based on a psycholinguistic communications model. The PSI determines if and how the subject is receiving sensory information from various environmental stimuli. The technique was developed by Dr. Ruth Meltzer Pinnaas, a neuro-behavioral specialist.

The Zero Input Tracking Analyzer/Auxiliary Distraction Task, an electronic machine is designed to detect deviations in a child's performance with and without the introduction of an artificial stress situation. It is used to detect and assess minimal brain dysfunction such as hyperkinesis, hypokinesis, high risk potential, and undearousal. The device was developed by Norman K. Walker, of Norman K. Walker and Associates of Rockville, Maryland.

The screening instrument evaluation was confined to children receiving the services of two organizations in Dade County, Florida: the Comprehensive Health Care Program (CHCP) of the University of Miami Department of Pediatrics, and the Greater Miami Epilepsy Foundation, Inc. The CHCP program provided these services to its Medicaid eligible children. The Epilepsy Foundation provided these services to children without epilepsy in the non-Medicaid school population.

The study screened 192 subjects. They were children between the ages of six and 12 years, and (a) currently Medicaid eligible enrolled in the health clinic (CHCP) and present on a developmental screening test day with a parent or guardian

who consented to the child's participation, or (b) were students from a local elementary school who had parental consent letters.

Five test administrators were used in the study. Two of the administrators were psychometric technicians with CHCP. The other three were employees of the Dade County E.P.S.D.T. Demonstration Project. All testers had been trained to give the ZITA/ADT and the PSI by the test developers.

Diagnostic evaluation for developmental disabilities on 89 children enrolled in CHCP were performed by a pediatric psychiatrist under the auspices of the University of Miami Department of Child Psychiatry. Each child was evaluated in the areas of intellectual functioning, learning disabilities, and emotional problems based on a one-hour evaluation session held between the subject, his parent (if available) and the psychiatrist. Each subject was screened on the ZITA/ADT and the PSI.

These screening results, along with the diagnostic WISC-R, WRAT tests, and primary psychiatric observations were done on a random basis and recorded and scored daily.

The 103 children at the elementary school were diagnosed for developmental disabilities by a neuro-behavioral specialist and these findings alone with the WISC-R scores were compared with the screening outcomes. The total assessment and screening took four or five hours. All testing was done on a random basis,

and was reported daily.

The screening results of the ZITA/ADT and the PSI were compared with the diagnostic evaluation, with the fullscale and subscores of the WISC-R and with WRAT reading arithmetic subscores.

The PSI proved most successful in identifying children with developmental disabilities. The sensitivity of the PSI was 100 per cent at the WISC-R fullscale of 69. The specificity of the PSI varied between 81 and 83 per cent. The underreferral rate was zero per cent, which is perfect. The overreferral rate was 16 per cent.

Projected results of the study indicate that with the I, 7,750 children could be screened by each para-professional annually, and 4,250 with the ZITA/ADT technique. Cost analysis for 100,000 children using the PSI showed personnel at \$1.15 per child, royalties and equipment at \$.91 per child, and a total cost per child of \$2.06. ZITA/ADT personnel at \$2.10 and equipment cost at \$1.41 per child, with a total test cost of \$3.51 per child.

The study demonstrated that the ZITA/ADT was not predictive of problems in any specific area for which diagnosis was available: intellectual disabilities, learning disabilities, or emotional disorders (See Table 1).



TABLE 1  
 ZITA/ADT RESULTS BY INTELLECTUAL DYSFUNCTIONS,  
 EMOTIONAL PROBLEMS AND LEARNING DISABILITIES \*

| CHCP                | EPILEPSY<br>FOUNDATION | BOTH                |
|---------------------|------------------------|---------------------|
| Sens. 81% Under 27% | Sens. 57% Under 9%     | Sens. 75% Under 35% |
| Spec. 20% Over 12%  | Spec. 47% Over 42%     | Spec. 40% Over 11%  |
| Phi .02             | Phi .03                | Phi .15             |

\* This includes the overall outcome across all ZITA/ADT subscores compared to the variant diagnostic configuration in any one or more problem categories.

While the test is relatively inexpensive to administer we could not determine what it was identifying. The intensive attention and split-second reaction time required to perform well on the ZITA/ADT do not appear, according to our studies, to have any relationship to performance on standardized traditional measurements of intelligence, and by extrapolation to performance in school and daily life.

The current research project further demonstrated that the PSI is inexpensive, quick (12 minutes including scoring) and simple to administer for the initial screening or detection of developmental disabilities. It was most effective in detecting the specific area of intellectual dysfunction.

While the PSI is sensitive in screening for intelligence

ysfunctions, it did not prove useful in other areas of developmental disabilities (Table 2).

TABLE 2

AGE ADJUSTED RAWSCORE OF PSI BY INTELLECTUAL DYSFUNCTION,  
EMOTIONAL PROBLEMS, OR LEARNING DISABILITIES\*

| CHCP                | EPILEPSY<br>FOUNDATION | BOTH                |
|---------------------|------------------------|---------------------|
| Sens. 45% Under 37% | Sens. 19% Under 17%    | Sens. 38% Under 26% |
| Spec. 72% Over .09% | Spec. 100% Over 0%     | Spec. 93% Over 4%   |
| Phi .17             | Phi .40                | Phi. 38             |

This includes the age adjusted PSI result compound to the variant diagnostic confirmation by any one or more problem categories.

Therefore, while we accept screening as a model of assessing developmental disabilities, we also encourage further exploration for possible alternative instruments (Ireton and Thwing, 1976). These screening devices can and should be objectively assessed using the classical public health techniques of Thorner and Remein (1967).

The need for early childhood screening to detect developmental disabilities is vital. Early detection and subsequent diagnosis and treatment can and does prevent hardship on the individual, his family, and the nation's human service systems (Adler, 1977) (Faas, 1976). The need

for accurate and low cost screening has been established. So has its feasibility. The models employed by the Dade County E.P.S.D.T. Demonstration Project, in addition to individual test results, brought to focus the need for still more effective tests and screening techniques.

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EARLY AND PERIODIC SCREENING  
DIAGNOSIS AND TREATMENT

A Dade County, Florida Demonstration Project

THE ADVISORY COUNCIL

By

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Miami, Florida

July, 1979

## ABSTRACT

### THE ADVISORY COUNCIL

BY JERI H. FRIEDMAN, D.P.A. AND JOHN T. WOOD

The appropriateness of an Advisory Council became questionable when such a group was formed for the Early and Periodic Screening, Diagnosis and Treatment (E.P.S.D.T.) Demonstration Project; a special project designed to improve Medicaid related health services for children from birth to 21 years of age. Because of the minimal relevance of the Project to represented agencies and individuals, and their inability to have impact due to stringent State and Federal Regulations, many council members felt the meeting to be an ineffective use of their time and attendance was poor. However, Advisory Council members did make contributions as individuals when it came to resolving the specific local health care problems of children.

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## THE ADVISORY COUNCIL

By Jeri H. Friedman, D.P.A.

and John T. Wood

Characteristically many human service programs have Advisory Councils to govern their activities. This paper deals with some of the experiences resulting from such a group as it worked with the Early and Periodic Screening, Diagnosis and Treatment (E.P.S.D.T.) Demonstration Project; a special project designed to improve Medicaid related health services for children from birth to 21 years of age. The Council was formed with 25 representatives from numerous agencies and individuals who provide health care services to children. The Project hoped to eventually look toward the council to serve as a cohesive element among providers to facilitate maximum cooperation and the utilization of all available resources in the community.

Traditionally Advisory Councils have developed along a continuum of size and function, depending on the program association and program purpose. Small Advisory Councils generally tend to direct policy, while large councils tend to serve only in an advisory capacity.

Given that Advisory Councils vary greatly in their influence on a program, in the initiative they take, and the authority they are allowed to exercise, the question

as to whether or not Advisory Councils are always appropriate. This is especially true in the case of large Advisory Councils where there is little opportunity for consensus on the policy direction the council offers the program. This lack of consensus tends to weaken the council's input and may result in its serving little or no purpose. Thus the formation of such groups may oftentimes prove to be a waste of energies.

As a federally regulated health care program with pre-established goals and objectives it is virtually impossible for a local Advisory Council to have a substantial impact on the E.P.S.D.T. program. To satisfy federal requirements a council model was chosen which would yield the broadcast range of community involvement.

From among the agencies and individuals serving the program and its clients, a tentative list of Advisory Council members was compiled. The list was based on two criteria: (a) the agencies/providers were directly involved in E.P.S.D.T. services, and (b) the agencies/providers dealt closely with children who were receiving E.P.S.D.T. services. The list was submitted for approval to the Department of Health and Rehabilitative Services, District Advisory Council (DAC), an arm of the State HRS agency which operates the federally funded E.P.S.D.T. Project in the community. On the basis of the recommended list, the DAC commissioned the council membership consisted of representatives from: the Health Systems Agency;



the Mental Health Board; Children's Medical Services; Juvenile Court; the Public Health Department; Public School System; Community Action Agency; the County Hospital; University Department of Family Medicine, Psychiatry and Pediatrics; physicians and dentists and many other public and private human service agencies.

The Advisory Council initially established its goals and objectives which were to: (1) Identify problems in delivering health care services to eligible children and recommended solutions to these problems. (2) Facilitate the development of referral relationships among member agencies. (3) Exchange information effected by health care services offered by member agencies. (4) Give input as to the future direction of the program.

Although appointments to the Advisory Council were graciously accepted, attendance to meetings lessened with each successive gathering. Members of the Council devoted their primary energies to their own professions or agencies. The services offered by the program were only minimally associated with their service areas and they saw, at the onset, that they would have little impact on a project so tightly controlled by Federal and State regulations and that they would be unable to effect policy changes. The structured meetings became an exercise in futility to many council members since their contributions could only be made in an advisory manner.

difficulties began to arise in the availability of time for attending the bi-monthly meetings.

Although the Council had no leverage to effect change in the local or national E.P.S.D.T. program, it did prove to have both impact and benefit through the use of gained personal contacts for resolving specific case problems. The positive outgrowth of the meetings became the associations which lead to direct accessibility and personalized cooperation among Council members. The program's staff was able to easily contact and call on Advisory Council members for their expertise and influence in many instances.

As examples of some of the results of being able to call on Advisory Council members, the following cases are cited:

In this health care program's service coverage area, between 10 and 12 per cent of the E.P.S.D.T. eligible children reside with a relative who is neither their parent nor legal guardian. These adults are not able to obtain health care services for the children in their care unless there is an emergency situation which would come under the "good samaritan act". Therefore, there was no effective way of getting health care services for these children.

John was a case in point. He was abandoned by both parents and left at his grandmother's house. The whereabouts of his father were unknown. Repeated efforts were made by the grandmother and State agencies but they were unable to locate

the mother. No one within the State Human service System can or would serve the physical, mental and emotional needs of the child. John was failing in school. Teachers thought it was because he needed glasses. Beside the academic failure, he had other resulting emotional problems in addition to those precipitated by his home life. There was no question as to his needs, only the consent to be able to use existing services to try to solve his problems.

The program worked with the Advisory Council members from several agencies including the Juvenile Court and Legal Services to obtain a court order for non-parent relatives to be able to authorize medical screening and treatment for children under their care. After considerable lobbying by Advisory Council members the Juvenile Court authorities agreed that, upon sufficient evidence, the judges would sign a "Petition for Authorization to Consent to Screening and Necessary Medical Treatment" in order to obtain health care services.

Under State law a provider cannot be paid until he has completed all the components of screening. After keeping an initial appointment where screening was not completed some children failed to show up for three or four subsequent appointments. Providers could not be reimbursed for partial services for which they were eligible. With the assistance of Advisory Council members the Project Director initiated research to resolve the problem. Providers were contacted to learn the success rate of children for keeping multiple

appointments. The loss of revenues was also documented. By analyzing the data and reporting to the screening provider, the Advisory Council was able to convince those providers to complete all screenings and immunizations in one visit. This both benefited the child by providing him with all the services for which he was eligible, and the provider in decreasing the rate of partial screening. Consequently the number of reimbursements increased.

Reimbursements to certain providers for vision, dental and auditory services cannot be issued without verification of the health screening. The Advisory Council found and reported a substantial time lag between the date when the child screened and the date when verification of that screening occurred. This delayed reimbursement and had caused a great deal of frustration with the Medicaid system on the part of providers. The staff held meetings with selected Advisory Council members to discuss the issue of how to expedite getting the results of screening reported in a timely manner. Sources of delay were identified, and remedial action was recommended in each instance. Each of these problem areas was tackled in the meeting and a new reporting procedure was developed. This new procedure subsequently resulted in earlier diagnosis and treatment of problems during screening.

Mark, a hydrocephalic, is confined to a school for the retarded. Although he is eligible for medical services he is unable to travel to a screening site. The problem is that

Mark and other retarded children in this and similar care facilities cannot receive treatment for many non-emergency health care problems without first being screened. The program staff worked with several Council members in developing a new procedure whereby these children could be screened at the school and that screening would be accepted as complete and adequate.

It was found that some program service workers lacked a clear understanding as to who is eligible for health care services. The Advisory Council determined that workers needed further training in all aspects of service eligibility. On the recommendation of the Advisory Council, supervisors developed a training program to eliminate worker confusion about service eligibility. As a result of this plan information was distributed to all service units and incorporated in the training program for all new workers.

Further, new treatment and screening procedures were undertaken by members of the Advisory Council. A doctor at the county hospital dental clinic requested reimbursement for services to a child who had serious problems with his mouth and acutely needed orthodontial work which the program does not usually cover. Because of the severity of the child's problem, and the future potential damage to teeth and supporting structures, several members of the Advisory Council worked with the State agency to secure coverage for these services.

It is true that meetings of the Advisory Council were not

always well attended. Because of the minimal relevance of the program to the represented agencies and individuals, and the inability to have impact because of stringent State and Federal regulations, many Council members felt the meetings to be an ineffective use of their time. However, Advisory Council members did exert influence and change in specific local matters. The Council members made their greatest contributions as individuals when called upon for their expertise and influence in resolving specific health care problems of children.

## APPENDIX I

### PROJECT FORMS FOR CASE MONITORING COMPONENT

Sampling Form 7514  
Historical Control Sampling Form  
Registration Form  
Registration Form Definitions and Codes  
Problem Referral Form  
Transaction Form  
Client Information Form  
Control Group Data Form  
Codes for Medical Problems Identified at Screening

(See Back for Instructions)



Date/Effective Date

# INSTRUCTIONS

In addition to the information normally filled out on this form for service requests, please complete the following information when E.P.S.D.T. Medicaid Services are requested:

1. Be sure and indicate your Unit number on the top of the form.
- Fill out the number of children receiving Medicaid within the family.
3. Indicate the Ethnic Background of the child.  
There are two columns under Ethnic Background. Under the first column, check if the client is Black, White or Other. Under the second column check if the client is Spanish or Non-Spanish.  
("Spanish" is determined by the client's primary language and/or cultural background.

E.P.S.D.T. DEMONSTRATION PROJECTHISTORICAL CONTROL SAMPLING FORM

UNIT \_\_\_\_\_

DATE \_\_\_\_\_

CLIENT \_\_\_\_\_ R/S \_\_\_\_\_ FAMILY # \_\_\_\_\_

ADDRESS

AT REQUEST \_\_\_\_\_

ACTIVE \_\_\_\_\_

CLOSED \_\_\_\_\_

CURRENT

ADDRESS \_\_\_\_\_

REQUEST DATE(S)CHILDDATE OF BIRTHRACE/SEX\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
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\_\_\_\_\_  
\_\_\_\_\_

COMMENTS:

# E.P.S.D.T. DEMONSTRATION PROJECT REGISTRATION FORM

1 FAMILY: HDM

MEDICAID NO.

1. INITIAL ☐

2. UPDATE ☐

DATE OF REGISTRATION

NAME

last first mi.

DATE OF BIRTH

SEX

ADDRESS

no. street apt#

city state zip

place of birth

PHONE

ETHNIC GROUP

☐

PAYMENTS UNIT

ETHNICITY CODE

SERVICE UNIT

\*EDUCATION (YRS) \*

CASE MONITOR

## CHILDREN

NAME

last first mi.

MEMBER NO.

DATE OF BIRTH

RELATIONSHIP  
TO HDM

☐

☐

☐

☐

☐

☐

2 CHILD

MEDICAID NO.

DATE OF REGISTRATION

SEX

☐

NAME

last first mi.

place of birth

REFERRAL DATE

ETHNIC GROUP

☐

\*PREVIOUS SOURCES OF MEDICAL  
CARE

\*SCHOOL\*

\*SCHOOL INTERVENTION\*

☐ yes ☐ no

E.P.S.D.T. DEMONSTRATION PROJECT REGISTRATION FORM

DEFINITIONS AND CODES

DISPLAY 1: CHILD IDENTIFICATION INFORMATION

Medicaid Number: For the vast majority of children, this is the 7-digit AFDC Family Number and 3-digit member Number (the first 2 digits of the Member Number, left justified, will be entered). There is a Family Number for all children who receive Medicaid through AFDC eligibility. For some Medicaid eligible children who are living in an AFDC family but who do not receive AFDC payments, their Medicaid number is the first 7 digits of their Social Security Number plus a 3-digit Member Number assigned by SES. For most cases, the 7-digit Family Number will be obtained from the sampling form when the case is opened. Member Numbers will be based on the number of children in the family and will be updated later from payments records.

Initial/Update Code: 1 = initial registration form;-  
2 = updated information.

Date of Registration: Month-day-year (use 2-digit codes).  
This is the date of initial Registration, when the data

## Registration Form

from the sampling form is entered on the Registration Form to open a case.

Name: Child's full name. For Historical Group, this information is obtained from the sampling form. For Contemporary Control and Experimental Groups, this information will be obtained from the Payments Record File (the Assistance Payment Record (APR) or the Eligibility Determination Record (Form DFS-AP-753)).

Address: Child's current address, including Zip Code. For Historical Group, address is the current address given on the sampling form. For Contemporary Control and Experimental Groups, the initial entry is the AFDC client's address.

Date of Birth: Month-day-year (use 2-digit codes). For Historical Group, Date of Birth is obtained from the sampling form. For Contemporary Control and Experimental Groups, Date of Birth is obtained from Payments Records (Assistance Payment Record (APR) or Eligibility Determination Record DFS-AP-753).

Sex: M = Male; F = Female. For all 3 groups, sex is obtained from Payments records Race-sex codes (APR Item 25), as indicated below:

## Registration Form

Males (M)A  
C  
E  
G  
I  
KFemales (F)B  
D  
F  
H  
J  
L

Place of Birth: City and State, if United States; Country, if foreign. Information obtained from Eligibility Determination Record (Form DFS-AP-753) in Payments records.

Phone Number for Contact: Number that SES uses to contact the AFDC client. Phone number obtained from SES Service Records or Payments Records (most recent Eligibility Determination Record DFS-AP-753, under "Address").

Census Tract: Obtain Census Tract from map or from Dade County Street/Tract Directory.

Ethnic Group: Ethnic category for quota sampling information obtained from sampling forms. Cases are coded according to one of the following 3 categories:

- 1 = Black
- 2 = Spanish
- 3 = White Non-Spanish

Ethnicity Code: Detailed ethnic categories obtained during interview with client. Ethnicity codes are as follows:

## Registration Form

- 11 = Black - U.S.
- 12 = Black - Haitian
- 13 = Black - Other
- 21 = Black - Cuban
- 22 = White - Cuban
- 23 = Puerto Rican
- 24 = Mexican
- 25 = Other Spanish
- 31 = White - U.S.
- 32 = White - Foreign

Group Codes: Cases are assigned to one of the following research groups:

- 1 = Contemporary Experimental Group
- 2 = Contemporary Control Group
- 3 = Historical Control Group

Information obtained from sampling form.

School: The name and code of the school the child attends (codes to be supplied later). Enter "none" if child does not attend school. This information is obtained during the client interview.

School Intervention: 0 = no school intervention;  
1 = school intervention. These codes will be assigned by the Sector Coordinator after the screening interview. School intervention will occur only with the Contemporary Experimental Group.

## Registration Form

DISPLAY 2: FAMILY-MEDICAL INFORMATION

Health Decision Maker (revised 1/13/77): The Health Decision Maker is the person who assumes the responsibility of taking the child for medical, dental or psychiatric treatment. This is the person who is contacted for case intervention and will be the AFDC Client who is listed under the "Mother or Mother Surrogate" or "Father or Father Surrogate" sections of the E.P.S.D.T. Registration Form. Code the Relationship the health decision maker is to the child, as Mother, Father or Self, as indicated on the Registration Form. Mother refers to the Mother or Mother Surrogate who is listed under Display 3 if she is the AFDC client; Father refers to the Father or Father Surrogate who is listed under Display 4 if he is the AFDC client; Self refers to those cases where the AFDC client is under 21 years and wants E.P.S.D.T. for him/herself.

Sources of Medical Care: Indicate the clinics or private practitioners the child currently goes to for treatment, according to the categories indicated on the Registration Form. This information is obtained during the client interview.



## Registration Form.

Sources of Family Income: These are monthly dollar amounts obtained from the most recent Assistance Payments Records (APR) in the client's Payment Record file as follows:

| <u>Category</u> | <u>APR</u>                    |
|-----------------|-------------------------------|
| earned income   | item 46 (Gross Earned Income) |
| other income    | item 52 (Gross Other Income)  |
| Social Security | item 55 (Social Security)     |
| AFDC Grant      | item 64 (Net Gross Amount)    |

Head of Family: This is the head of the family group receiving AFDC. Code according to the categories listed on the Registration form. This information is obtained from the client interview.

Sources of Medical Payments: This is how the child's medical bills are paid. Code according to the categories listed on the Registration Form. This information is obtained from the client interview.

## Registration Form

DISPLAY 3: MOTHER (MOTHER SURROGATE) INFORMATION

Name: Full name of Mother or Mother Surrogate. For all three groups (Contemporary Control and Experimental Groups, Historical Control Groups), this is the Client's name on a sampling form, if the client is female.

Address: Mother/Mother Surrogate's current address, including Zip Code. Information obtained from sampling form for initial entry; address changes for Contemporary Groups are found on the Assistance Payments Record (APR) in the client's Payments Record file.

Phone Number for Contact: If Mother/Mother Surrogate is the AFDC client, this is the number that SES uses to contact the AFDC client; in most cases this will be the client's home phone number, which is obtained from SES Service Records or Payments Records (most recent Eligibility Determination Record DFS-AP-753, under "address"). If Mother/Mother Surrogate is not the AFDC client obtain this information from Service or Payments records if available or during the interview with the AFDC client.

Date of Birth: City and State if U.S., country if foreign. Information obtained from Eligibility Determination Record (Form DFS-AP-753) in Payments Record File, if available, or during the client interview.

## Registration Form

Primary Language: This is the language spoken at home.  
This information is obtained at the client interview.

Ethnic Group: See definition under Section 1.

Ethnicity Code: See definition under Section 1.

Employment Information: If the Mother/Mother Surrogate is the AFDC client, the information for the items listed below is found in the AFDC client's Payments Record File, in the Eligibility Determination Record (Form DFS-AP-753) or in attachments to the record. If the Mother/Mother Surrogate is not the client, obtain this information from Service or Payments records, if available, or during the interview with the client.

Currently Employed: Indicate "yes" or "no". If employed, indicate whether full time or part time.

Date of Employment: This is the date the Mother/Mother Surrogate was employed. If she has had several jobs with no period of unemployment between jobs, the date of employment would be the date for the earliest job.

Occupation: This is the Mother/Mother Surrogate's skill, trade or work activity, not where she is employed. Enter occupation for both employed and unemployed persons. Include "housewife" and "student" as occupations. The

## Registration Form

occupation code is a 4-digit code to be added later.

Education (years): The highest grade in school the Mother/Mother Surrogate has attained. For example, a high school degree would be 12 years old; one year of college would be 13 years. This information is found in the Eligibility Determination Record (Form DFS-AP-753) or in attachments to the record for Mother/Mother Surrogates who are AFDC clients.

Relationship to Child: Use the following codes:

- 1 = Mother
- 2 = Step Mother
- 3 = Guardian (not related to child)
- 4 = Aunt
- 5 = Grandmother
- 6 = Sister
- 7 = Foster Parent
- 8 = Other

## Registration Form

DISPLAY 4: FATHER (FATHER SURROGATE) INFORMATION

See Display 3: Mother (Mother Surrogate) Information for definitions and codes of information to be entered here.

For Father/Father Surrogate, use the following Relationship to Child codes:

- 1 = Father
- 2 = Step Father
- 3 = Guardian (not related to child)
- 4 = Uncle
- 5 = Grandfather
- 6 = Brother
- 7 = Foster Parent
- 8 = Other

NOTE: For Displays 3 and 4, if both the Mother/Mother Surrogate live in the family with the child, all information requested on the Registration Form would be entered for both. If either the Mother/Mother Surrogate or Father/Father Surrogate is absent, the information pertaining to that person may in some cases not be available. For these persons, however, the name, address, and relationship to child must be filled in. If absent parents are considered the child's medical decision maker or head of family, the phone number must also be included.

## Registration Form

DISPLAY 5: REFERRAL-MEDICAID INFORMATION

Referral Date: Month, day, year (use 2-digit codes).  
 The date the AFDC client requested E.P.S.D.T. services.  
 This date is obtained from the sampling forms.

Case Monitors: Monitor's first and last name and code,  
 as follows:

|    |                |    |        |
|----|----------------|----|--------|
| 01 | Shelley Bravo  | 07 | vacant |
| 02 | Norman Aguero  | 08 | vacant |
| 03 | Olania Valens  |    |        |
| 04 | Tina Williams  |    |        |
| 05 | Jewel Williams |    |        |
| 06 | Wilbert Harris |    |        |

Referral Code (revised 1/14/77): This is the source of  
 referral to the E.P.S.D.T. Demonstration Project and is obtained  
 from the sampling forms. Code according to the following  
 categories:

|   |                           |                                       |
|---|---------------------------|---------------------------------------|
| 1 | = Applications/Payments   | (Form 7514)                           |
| 3 | = Service Review          | } (Client Information Form)           |
| 4 | = General Letter          |                                       |
| 5 | = Other                   |                                       |
| 9 | = Historial Control Group | (Historical Control<br>Sampling Form) |

## Registration Form

Applications Unit: This is the SES Applications Unit serving the child. The following Applications Unit serve the clients living in the E.P.S.D.T. Project Area: 30, 36, 14, 42. Code only for Contemporary Control and Experimental Groups. Code Historical Control Group 99. Information obtained from sampling forms, case records or Project map.

Payments Unit: This is the SES Payments Unit serving the child. The following Payments Units serve the clients living in the E.P.S.D.T. Project Area: 8, 12, 37, 10, 14, 32, 42. Code for all three groups (Contemporary Control, Experimental and Historical Control Groups). Information obtained from sampling forms, case records or Project map.

Service Unit: This is the SES Service Unit serving the child. The following Service Units serve the clients living in the E.P.S.D.T. Project Area: 33, 22, 35. Code for all three groups. Information obtained from sampling forms, case records or Project maps.

Medicaid Eligibility: Month, day, and year child became Medicaid eligible or was removed from eligibility. Code E = eligible; R = removed (date of ineligibility). Dates obtained from Item 27 of the Assistance Payment Record (APR) in the Payments Record file.

## Registration Form

DISPLAY 6: INFORMATION ON OTHER CHILDREN

Number of Other Children Receiving Medicaid: This is the number of children in the family who are Medicaid eligible. This information is initially obtained from the sampling forms but additional children may be discovered during the client interview.

The member numbers, dates of birth, and relationship to the child for the other Medicaid-eligible children in the family are obtained from the Assistance Payments Record (APR) in the client's Payments Record file. For children in the family not receiving AFDC but who are eligible for Medicaid, this information is obtained from the client interview. Code "Relationship to Child", as follows:

- B = Brother (includes step-brother)
- S = Sister (includes step-sister)
- A = Aunt
- U = Uncle
- C = Cousin
- M = Mother
- F = Father
- O = Other



E.P.S.D.T. DEMONSTRATION PROJECTPROBLEM REFERRAL FORM

Child's Name \_\_\_\_\_ Medicaid # \_\_\_\_\_

Date of Screening \_\_\_\_\_ All problems identified \_\_\_\_\_

\*\*Problem to be dealt with on this page \_\_\_\_\_ \*\* Page \_\_\_\_\_

## =====

PROVIDER PAYMENTS  
Provider Number \_\_\_\_\_

Provider Name \_\_\_\_\_ Phone # \_\_\_\_\_

Address \_\_\_\_\_

List all service dates for which this provider received payment

\_\_\_\_\_  
\_\_\_\_\_

## =====

## PROVIDER INTERVIEW

Hello, my name is \_\_\_\_\_. I work for the State of Florida on a special Medicaid research project. Our records indicate that (child's name) \_\_\_\_\_ was screened at a health clinic on \_\_\_\_\_ and had a \_\_\_\_\_ problem identified. Our records also indicate that you treated this child shortly thereafter. Can you tell me please:

- a. Did you treat this child for the \_\_\_\_\_ problem identified at screening? YES \_\_\_ NO \_\_\_

If yes:

- b. Please list all dates on which you treated this problem.

\_\_\_\_\_  
\_\_\_\_\_

- c. What was the treatment outcome?

1. False positive screen (no problem)
2. Treatment was completed
3. Condition noted, treatment was not advisable, warranted, authorized or locally available
4. Patient is still under treatment
5. Patient was referred to another provider (list provider's name and address)

\_\_\_\_\_  
\_\_\_\_\_

6. Patient stopped coming for treatment; treatment not completed
7. Other: Specify \_\_\_\_\_

## TRANSACTION FORM

REV 1277

## E.P.S.D.T. DEMONSTRATION PROJECT

## CLIENT INFORMATION FORM

SOURCE: Service Review \_\_\_\_\_  
General Letter \_\_\_\_\_  
Other \_\_\_\_\_

SERVICE UNIT NO. \_\_\_\_\_

DATE: \_\_\_\_\_

CLIENT'S NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_ FAMILY # \_\_\_\_\_

\_\_\_\_\_ NO. OF CHILDREN \_\_\_\_\_

ETHNIC BACKGROUND: (check one in each column):

Black \_\_\_\_\_  
White \_\_\_\_\_  
Other \_\_\_\_\_

Spanish \_\_\_\_\_  
Non-Spanish \_\_\_\_\_

(See Instructions on Back)

## E.P.S.D.T. DEMONSTRATION PROJECT

## CLIENT INFORMATION FORM

SOURCE: Service Review \_\_\_\_\_  
General Letter \_\_\_\_\_  
Other \_\_\_\_\_

SERVICE UNIT NO. \_\_\_\_\_

DATE: \_\_\_\_\_

CLIENT'S NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_ FAMILY # \_\_\_\_\_

\_\_\_\_\_ NO. OF CHILDREN \_\_\_\_\_

ETHNIC BACKGROUND: (check one in each column):

Black \_\_\_\_\_  
White \_\_\_\_\_  
Other \_\_\_\_\_

Spanish \_\_\_\_\_  
Non-Spanish \_\_\_\_\_

(See Instructions on Back)

INSTRUCTIONS

This form is to be used when a client requests E.P.S.D.T. Services for the first time.

The following explanation of terms will be helpful:

1. Source - The service worker is to indicate, by placing a check on the appropriate line, how the client requested E.P.S.D.T. Services.
2. Date - Write down the month, day, and year you are filling out the form.
3. Number of Children - Indicate the number of children receiving Medicaid within the family.
4. Ethnic Background - There are two columns under ethnic background. Under the first column, check if the client is Black, White or Other. Under the second column, check if the client is Spanish or Non-Spanish. ("Spanish" is determined by the client's primary language and/or cultural background).

INSTRUCTIONS

This form is to be used when a client requests E.P.S.D.T. Services for the first time.

The following explanation of terms will be helpful:

1. Source - The service worker is to indicate, by placing a check on the appropriate line, how the client requested E.P.S.D.T. Services.
2. Date - Write down the month, day, and year you are filling out the form.
3. Number of Children - Indicate the number of children receiving Medicaid within the family.
4. Ethnic Background - There are two columns under ethnic background. Under the first column, check if the client is Black, White or Other. Under the second column, check if the client is Spanish or Non-Spanish. ("Spanish" is determined by the client's primary language and/or cultural background).

E.P.S.D.T. DEMONSTRATION PROJECTCONTROL GROUP DATA FORM

Child's Name \_\_\_\_\_ Medicaid # \_\_\_\_\_

Date of Screening \_\_\_\_\_ All problems identified \_\_\_\_\_

\*\*Problem to be dealt with on this page \_\_\_\_\_ \*\* Page \_\_\_\_\_

## =====

PROVIDER PAYMENTS

Provider Number \_\_\_\_\_

Provider Name \_\_\_\_\_ Phone # \_\_\_\_\_

Address \_\_\_\_\_

List all service dates for which this provider received payment

\_\_\_\_\_  
\_\_\_\_\_

## =====

## PROVIDER INTERVIEW

Hello, my name is \_\_\_\_\_. I work for the State of Florida on a special Medicaid research Project. Our records indicate that (child's name) \_\_\_\_\_ was screened at a health clinic on \_\_\_\_\_ and had a \_\_\_\_\_ problem identified. Our records also indicate that you treated this child shortly thereafter. Can you tell me please:

- a. Did you treat this child for the \_\_\_\_\_ problem identified at screening?

YES \_\_\_\_ NO \_\_\_\_

If yes:

- b. Please list all dates on which you treated this problem.

\_\_\_\_\_  
\_\_\_\_\_

- c. What was the treatment outcome?

1. False positive screen (no problem)
2. Treatment was completed
3. Condition noted, treatment was not advisable, warranted, authorized or locally available
4. Patient is still under treatment
5. Patient was referred to another provider (list provider's name and address)

- \_\_\_\_\_  
\_\_\_\_\_
6. Patient stopped coming for treatment; treatment not completed
  7. Other: Specify \_\_\_\_\_

CODES FOR MEDICAL PROBLEMS IDENTIFIED  
AT SCREENING

Conditions identified at screening are organized into seven major categories:

|       |                                         |
|-------|-----------------------------------------|
| 20-23 | Dental Problems                         |
| 25    | Vision Problems (non-Medical referral)  |
| 27    | Hearing Problems (non-Medical referral) |
| 29    | Immunization                            |
| 30-87 | Medical Problems                        |
| 90-91 | Psychiatric Problems                    |
| 95-96 | Other Problems                          |

Conditions listed under each of these seven categories are mutually exclusive and have problem code numbers assigned to them. Each condition identified at screening will be given a specific code number; a separate E.P.S.D.T. Problem Referral Form will be initiated for each coded condition.

Dental Problems

- 20 Routine Restorative Services
- 21 Peri-Dental Abscess
- 22 Other Oral Pathology
- 23 Other Dental (Specify)

Vision Problems (Non-Medical Referral)

- 25 Poor Vision (includes blindness)

Hearing Problems (Non-Medical Referral)

- 27 Poor Hearing (includes hearing loss)

Immunization

- 29 Incomplete Immunizations

Medical Problems

- 30 Nutrition - Obesity, malnutrition, etc.
- 32 Neurological and Developmental - Retardation
- 33 Neurological and Developmental - Seizure Disorder
- 34 Neurological and Developmental - Other Neurological

Conditions (severe headaches, lapse of consciousness, paralysis, muscle weakness, unsteady gait, etc.)

- 36      Orthopedic/Musculo - skeletal abnormalities
- 38      Skin - Ringworm and other scalp pathology
- 39      Skin - Impetigo
- 40      Skin - Other Skin Pathology
- 42      Eyes - eye defects or pathology
- 44      Ears - Drainage or inflammation, otitis media
- 45      Ears - foreign body
- 47      Speech Defect
- 49      Nose and Throat - Nasal Obstruction
- 50      Nose and Throat - Nasal Deformity
- 51      Nose and Throat - Chronic Tonsillitis, other throat infection
- 53      Glands, Thyroid - Enlarged lymph glands
- 54      Glands, Thyroid - Hyper Thyroidism (suspect)
- 56      Heart and Circulatory - Abnormal Heart Condition (history, signs or symptoms)
- 57      Heart and Circulatory - Rheumatic Fever (history, signs or symptoms)
- 58      Heart and Circulatory - Hypertension, Hypotension
- 60      Chest - Asthma
- 61      Chest - Pulmonary infection, acute or chronic cough
- 63      Abdomen - Umbilical Hernia
- 64      Abdomen - Inguinal Hernia
- 66      Genitalia and Urinary Tract - discharge or urinary tract infection
- 68      Male - undescended testicle



- 69 Male - Hydrocele
- 70 Male - Hypospadias
- 71 Male - Phimosis, severe
- 73 Female - pregnancy or pregnancy-related problems
- 74 Female - menstrual disorders, female reproductive pathology
- 76 Urinalysis - Positive for Albumin
- 77 Urinalysis - Positive for Glucose
- 79 Anemia - Sick Cell (suspect)
- 80 Anemia - Other (based on low hemoglobin or hematocrit level)
- 82 Intestinal Parasites (positive test)
- 84 Tuberculin Skin Test (positive intradermal test)
- 86 Other Medical - (specify)
- 87 Other Medical - (specify)

#### Psychiatric Problems

- 90 Emotional disorder (suspected non-medical disorder)
- 91 Other Psychiatric - (specify)

#### Other Problems

- 95 Indications of Child Abuse
- 96 Other - (specify)

APPENDIX II

TRACKING AND CASE INTERVENTION ACTIVITIES:

CASE MONITORING COMPONENT

TRACKING AND CASE INTERVENTION ACTIVITIES:  
CASE MONITORING COMPONENT

The following chart lists the Case Monitor's tracking activities for Control Group cases and the tracking and case intervention activities for Experimental Group cases. E.P.S.D.T. system events are listed in the left hand column.

| <u>EPSDT EVENT</u>                    | <u>CONTROL GROUP</u>                                                                                                                                                                                                                                                                                                                                   | <u>EXPERIMENTAL GROUP</u>                                                                                                                                                                                                                                                              |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Family requests screening appointment | <p>(1) SES caseworker (CW) contacts AFDC client to explain EPSDT.</p> <p>(2) CW makes screening appointment.</p> <p>(3) CW sends letter to family re appointment; family instructed to contact CW re appointment or transportation difficulties.</p> <p>(4) CW arranges for transportation or reschedules appointment only if requested by family.</p> | <p>(1) Case Monitor (CM) contacts AFDC client to explain EPSDT.</p> <p>(2) CM makes screening appointment.</p> <p>(3) CM contacts family at least 5 days before appointment date to ensure child shows up; CM arranges for transportation or reschedules appointment if necessary.</p> |

EPSDT EVENT

Child does not show up for screening

CONTROL GROUP

(1) Health Dept. notifies SES of missed appointment; if this is a third no-show, case is dropped; CM obtains information from SES records.

(2) CW sends letter to family requesting re-scheduling.

(3) If family responds, CW re-schedules appointment.

If no response, CW contacts client to reschedule; if no response within 10 days, it is assumed that family is not interested in screening. CM obtains this information from SES records.

Child shows for screening

Child is screened; Health Dept. sends screening results to SES; CM obtains results from Health Dept. records

Negative Screen

CM assigns case completion code.

Positive Screen

(1) Health Dept. initiates problem referral form(s); SES receives a copy of forms; SES initiates problem referral forms also.

EXPERIMENTAL GROUP

(1) Health Dept. notifies CM of missed appointment; if this is a third no-show case is assigned problem resolution Code 6.

(2) CM contacts family to reschedule appointment.

(3) CM reschedules appointment.

If family cannot be contacted after 3 attempts, case is assigned problem resolution Code 6.

Child is screened; Health Dept. sends screening results to SES and CM.

CM assigns case completion code.

(1) CM initiates problem/referral form(s).

EPSDT EVENTCONTROL GROUPEXPERIMENTAL GROUP

Positive screen

(2) SES notifies client by mail and encloses referral form for client to take to provider; client requested to contact SES if transportation is required; Health Dept. may also give client a referral form to take to provider

(2) CM notifies client of screening outcome, informs client of treatment needed, gives client provider list, gets client's choice of provider, makes the diagnosis/treatment appointment, informs the client of the appointment date, arranges for transportation if client requests it, and sends Problem Referral Form(s) to provider (appointment made within 60 days of screening completion).

Child shows for diagnosis/treatment appointment

Provider sends problem/referral form indicating diagnosis/treatment to SES (this seldom occurs).

Provider sends Project problem/referral form indicating diagnosis/treatment to CM; CM contacts provider if form is not returned; status of problem is entered in case record.

Diagnosis/treatment tracking procedure (does not exist in current system)

At least 120 days after date of screening appointment, CM contacts family to determine whether appointment was kept; if appointment was kept, CM records treatment outcome (problem resolution) and assigns case completion code\*; if appointment was not kept, CM assigns case completion code; CM interviews client to obtain background information on case.

\*and interviews provider, if necessary.

For clients who do not show for treatment or for those whose treatment is not yet completed, CM contacts family to determine status within 5 days of treatment appointment; if appointment was not kept, CM assists family in rescheduling appointment; if family does not wish to reschedule, case is assigned problem resolution Code 4. If appointment was kept, CM records treatment outcome (problem resolution): for treatment still in progress, CM remains in contact with family to assist client in keeping further treatment appointments. At close, CM assigns problem and case resolution codes.

STATE OF FLORIDA



DEPARTMENT OF

# Health & Rehabilitative Services

Reubin O'D Askew, Governor

District Eleven

E.P.S.D.T. DEMONSTRATION PROJECT

401 N.W. 2nd Avenue  
Miami, Florida 33128

Dear Ms. \_\_\_\_\_:

I have passed by your home several times to explain our program of medical care for childre child(ren) but, I was unable to locate you. Please call me at 377-5446 to arrange for a personal meeting.

Thank you for your cooperation in this matter.

Yours truly,

Nancy C. Lynk  
Asst. Social Worker

STATE OF FLORIDA



DEPARTMENT OF

# Health & Rehabilitative Services

District Eleven

Reubin O'D Askew, Governor

E.P.S.D.T. DEMONSTRATION PROJECT

401 N.W. 2nd Avenue  
Miami, Florida 33128

Estimada:

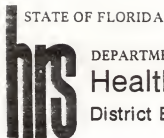
He pasado varias veces por su casa para  
explicarle el programa medico para su(s) hijo(s).

Por favor llameme al 377-5447 entre las  
9:00 a.m. y las 5:00 p.m.

Muchas gracias por su atencion en este  
asunto.

Atentamente,

Trabajadora Social



STATE OF FLORIDA

DEPARTMENT OF

# Health & Rehabilitative Services

District Eleven

Reubin O'D Askew, Governor

E.P.S.D.T. DEMONSTRATION PROJECT

401 N.W. 2nd Avenue  
Miami, Florida 33128

Dear Ms. \_\_\_\_\_:

This is to remind you that your child (children),  
\_\_\_\_\_, has (have) an  
appointment with Dr. \_\_\_\_\_ at \_\_\_\_\_,  
on \_\_\_\_\_. His/her office is  
located at \_\_\_\_\_. If you will be needing  
transportation, or find the date or time of this appointment  
impossible to make, please call me at 377-5447.

Thank you.

Nancy C. Laynk  
Asst. Social Worker



STATE OF FLORIDA



DEPARTMENT OF

# Health & Rehabilitative Services

District Eleven

Reubin O'D Askew, Governor

E.P.S.D.T. DEMONSTRATION PROJECT

401 N.W. 2nd Avenue  
Miami, Florida 33128

Estimada \_\_\_\_\_:

La presente es para hacerle acuerdo que su  
hijo(s), \_\_\_\_\_, tiene(n) una  
cita con el/la doctor(a), \_\_\_\_\_,  
el día \_\_\_\_\_ a las \_\_\_\_\_.  
Su oficina esta localizada en el \_\_\_\_\_.  
Si necesita transportacion, o encuentra que no podra  
cumplir con la cita en esta hora o este dia; por favor  
llameme al 377-5447.

Gracias,

Nancy C. Lynk  
Asst. Trabajadora Social

REMINDER OF APPOINTMENT

Dear \_\_\_\_\_:

This is to remind you that your child \_\_\_\_\_

has a SCREENING appointment with \_\_\_\_\_

at \_\_\_\_\_ on \_\_\_\_\_.

\_\_\_\_\_  
CASE MONITOR

AVISO IMPORTANTE

Estimada \_\_\_\_\_:

La presenta es para recordarle que su hijo \_\_\_\_\_

tiene una cita para un EXAMEN FISICO \_\_\_\_\_

en \_\_\_\_\_ el dia \_\_\_\_\_ Atentamente.

\_\_\_\_\_  
TRABAJADORA SOCIAL

## E.P.S.D.T. PROJECT SAMPLING LOG

|                       | CRA<br>UNIT<br>41 | UNIT<br>46 | UNIT<br>22 | UNIT<br>33 | UNIT<br>35 | TOTAL |
|-----------------------|-------------------|------------|------------|------------|------------|-------|
| Number of 7514 Forms: |                   |            |            |            |            |       |
| Number of CIF Forms:  |                   |            |            |            |            |       |

 RUNNING  
TOTALS

Total Number of Cases:

Black

Spanish

White

 Number of Cases in  
Experimental Group:

Black

Spanish

White

 Number of Cases  
in Control Group:

Black

Spanish

White

NAMEDATE

1. Forms picked up by: \_\_\_\_\_ for CRA \_\_\_\_\_
- \_\_\_\_\_ for unit 46 \_\_\_\_\_
- \_\_\_\_\_ for units 33 & 35 \_\_\_\_\_
- \_\_\_\_\_ for unit 22 \_\_\_\_\_
2. Sample drawn by: \_\_\_\_\_

E.P.S.D.T. DEMONSTRATION PROJECT  
CASE MONITOR DAILY TIME SUMMARY SHEET

CASE MONITOR

DATE

MAJOR ACTIVITYTIME WORKED TODAYHOURSMINUTES

Case Management (Experimental Only)

Training (including briefings  
and staff meetings) .....

Historical Control .....

Contemporary Control .....

Developmental Case Support  
Services .....

Personal (including breaks) .....

Administrative .....

Other specify. ....

TOTAL TIME WORKED TODAY .....

APPENDIX III  
PROJECT PRODUCTS

Job Description of Case Monitor

E.P.S.D.T. Training Module

Legal Form for Authorization for Treatment of a Minor

## E.P.S.D.T. TRAINING PACKAGE

### NEWLY ASSIGNED CASE MONITORS

#### DADE COUNTY E.P.S.D.T. DEMONSTRATION PROJECT

#### INTRODUCTION

The content of this individually designed training package was extracted from various sources.\* It was designed by the Dade County E.P.S.D.T. Demonstration Project and implemented December 20, 1976. Since that time it has been revised to meet changes in Project specifications, the needs of the case monitors, the addition of the management information system and as client's needs were determined.

The Purpose of the training package is to provide a cohesive tool by which the case monitor's supervisor (the Sector Coordinator) can effectively and efficiently train case monitors in the techniques and procedures required on their position as well as to provide a definitive body of knowledge which is readily available for reference. The package is updated as needed.

#### Goals are:

1. To effectively administer the E.P.S.D.T. Program.
2. To accumulate a body of knowledge and expertise which will provide better health care to the Aid to Families with Dependent Children Medicaid eligible recipients who are 0 - 21 years of age.
3. To serve the client by:
  - a. Educating the client regarding primary health care.
  - b. Introducing the client into the local health care system.
  - c. Following the client through the existent health

\* State of Texas Workbook for E.P.S.D.T. Case Finders and Case Monitors, A Self-Instructional Module for E.P.S.D.T. by John Simon and Patricia McArdle, and Social and Economic Services Policies and Procedures.

- d. Referring the client to other agencies when other needs are identified.

### Plan

One to ten newly assigned case monitors are given 3 days of intensive, classroom orientation and training by the Sector Coordinator. Materials used include a bound Manual, written and verbal Feedback Exercises, Handouts (which become a resource book for everyday use) and Guest Speakers from the Department of Health and Rehabilitative Services and community agencies.

Upon completion of the "Training Module", each new case monitor is assigned to a senior case monitor for an individualized period of 2 to 5 days in order to orient them to the program. During this time, conferences with the Sector Coordinator, which include the paired senior case monitor, are held to provide support, continued orientation and added specific information to the newly assigned monitor and to receive feedback from the senior monitor regarding his or her progress.

They are then assigned a full caseload and begin work. No further training designed specifically for newly appointed case monitors occurs. Thereafter, training is provided to all case monitors through mechanisms such as daily staff briefings, weekly staff meetings and, when necessary one on one work sessions pertinent to specific problems. Additionally, as changes occur within the Project, inservice training sessions are held. (See Addendum pages 9 - 10)

The Training Module - See Charts, pages 4 - 7.

### Objectives:

1. To provide case monitors with a thorough knowledge and understanding of the State of Florida E.P.S.D.T. system.
2. To familiarize case monitors with the Dade County E.P.S.D.T. Demonstration Project.
3. To orient case monitors to the Department of Health and Rehabilitative Services as it pertains to the Dade County E.P.S.D.T. Demonstration Project.
4. To describe to case monitors the health care system as it exists in Dade County.
5. To implement techniques in tracking a health care problem through the system.

6. To introduce case monitors to the research mechanisms applicable to the in-house case management system.
7. To ensure accurate reporting and recording of information obtained.
8. To provide case monitors with the skills needed to successfully follow a client through the health care system.
9. To familiarize case monitors with available community resources.
10. To provide the client with available information in existing E.P.S.D.T. and community services.
11. To stress the importance of primary health care to the client.
12. To help the client identify health care needs of their children.
13. To facilitate the client's movement through the system.
14. To follow-up and refer medical, psychological and ancillary problems to the appropriate facilities.



CHART I  
DAILY STRUCTURE

| DAY I                                         | DAY 2                             | DAY 3                                              |
|-----------------------------------------------|-----------------------------------|----------------------------------------------------|
| Introduction                                  | When to market E.P.S.D.T.         | How to arrange appointments/transportation         |
| Background and Law                            | How to gain the client's interest | Aid to Families with Dependent Children Philosophy |
| Definition and terms                          | Techniques of interviewing        | Social and Economic Services Component             |
| E.P.S.D.T. Demonstration Project Program Flow | Role Playing                      | Added Information on Child Abuse                   |
| The role of the Case Monitor                  | Screening Sites                   | Reports:<br>Interoffice<br>Intraoffice             |
| Questions/answers and windup                  | Questions/answers and windup      | Questions/answers and windup                       |

CHART II

ACTIVITY/CONTENT/TIME FRAME/MATERIALS USED

DAY 1

| TIME          | ACTIVITY/CONTENT                                             | MATERIALS USED                               |
|---------------|--------------------------------------------------------------|----------------------------------------------|
| 8:00 - 8:30   | Introduction of Sector Coordinator<br>and of case monitors   | -                                            |
| 8:30 - 9:30   | Background and E.P.S.D.T. law                                | Lecture - Manual                             |
| 9:30 - 10:30  | Definitions and Terms to be used                             | Lecture - Manual                             |
| 10:30 - 10:45 | Break                                                        | -                                            |
| 10:45 - 12:00 | General Discussion                                           | -                                            |
| 12:00 - 1:00  | Lunch                                                        | -                                            |
| 1:00 - 2:30   | Dade County E.P.S.D.T. Demonstration<br>Project/Program Flow | Lecture, handouts,<br>blackboard, flow chart |
| 2:30 - 2:45   | Break                                                        | -                                            |
| 2:45 - 4:00   | Role of Case Monitors                                        | Lecture - Manual                             |
| 4:00 - 5:00   | Questions/Answers and Windup                                 | -                                            |

## CHART II

## ACTIVITY/CONTENT/TIME FRAME/MATERIALS USED

## DAY 2

| TIME          | ACTIVITY/CONTENT                 | MATERIALS USED                           |
|---------------|----------------------------------|------------------------------------------|
| 8:00 - 8:30   | Briefing of previous day         | Lecture                                  |
| 8:30 - 9:30   | When to market E.P.S.D.T.        | Lecture and Manual                       |
| 9:30 - 10:30  | How to gain the clients interest | Lecture and Manual                       |
| 10:30 - 10:45 | Break                            | -                                        |
| 10:45 - 12:00 | Techniques of interviewing       | Training Manual,<br>Handouts and Lecture |
| 12:00 - 1:00  | Lunch                            | -                                        |
| 1:00 - 2:30   | Role playing                     | Handouts and group<br>participation      |
| 2:30 - 2:45   | Break                            | -                                        |
| 2:45 - 3:30   | Continuation of role playing     | Handouts and group<br>participation      |
| 3:30 - 4:00   | Screening sites                  | Training manual                          |
| 4:00 - 5:00   | Questions/answers and windup     | -                                        |

CHART II

ACTIVITY/CONTENT/TIME FRAME/MATERIALS USED

DAY 3

| TIME          | ACTIVITY/CONTENT                                                | MATERIALS USED                          |
|---------------|-----------------------------------------------------------------|-----------------------------------------|
| 8:00 - 8:30   | Briefing of previous day                                        | Lecture                                 |
| 8:30 - 9:30   | How to arrange appointments/<br>client transportation           | Handouts/Lecture                        |
| 9:30 - 11:00  | Aid to Families with Dependent<br>Children Philosophy           | Guest Speaker                           |
| 11:00 - 11:15 | Break                                                           | -                                       |
| 11:15 - 12:15 | Social and Economic Services Component                          | Guest Speaker                           |
| 12:15 - 1:15  | Lunch                                                           | -                                       |
| 1:15 - 2:30   | Additional Information - Child Abuse<br>Law/Policies/Procedures | Lecture/Training Manual                 |
| 2:30 - 4:00   | Reports: Interoffice<br>Intraoffice                             | Blackboard, lecture,<br>manual handouts |
| 4:00 - 5:00   | Questions/answers and windup                                    | -                                       |

Training Evaluation

No specific tests are given. Based on interaction in the training session, needed explanation and clarification is given. Actual work with caseloads and direct formal and informal supervision by the Sector Coordinator provides assessment of expertise and definition of new or added training needs.

ADDENDUM

(Additional training mechanisms)

A. DAILY STAFF BRIEFINGS (5 to 7 minutes)

Goal - To plan the day's activities.

Objectives

1. To arrange for phone and office coverage.
2. To identify recent case problems.
3. To discuss methods of solution.

B. WEEKLY STAFF MEETINGS (1 hour every Friday morning)

Goals

1. To inform staff of weekly Project developments.
2. To discuss in depth individual caseloads, problems and progress.

Objectives

1. To give current information needed to perform duties.
2. To identify, discuss and implement methods of solution to case monitoring problems.
3. To provide a forum for open communications.

C. ONE-ON-ONE SESSIONS (occur as needed - time not fixed)

Goal - To provide support to a particular case monitor so he or she can share problems with the Sector Coordinator in a non-threatening atmosphere.

Objectives

1. To provide an open atmosphere.
2. To identify a problem (personal or work-related) within a caseload that affects performance.
3. To discuss methods of solution.

4. To alleviate frustrations and anxieties.

D.       INSERVICE TRAINING

Goals - To teach new material or procedures pertaining to the Demonstration Project and to review and update ongoing policies and procedures.

Objectives

1. To provide handouts and manual updates pertaining to the subject.
2. To explain new procedures/materials.
3. To allow feedback regarding implementation of new policies/procedures.
4. To ensure a more effective tracking system in case management.

JOB DESCRIPTION OF CASE MONITOR

The position of "Case Monitor" involves para-professional work in the provision of social services to children and their families in order to ensure their integration into the Dade County health care system.

A Case Monitor:

- . Supplements the services provided by the Welfare Department, which notifies children and their families of services available to Medicaid eligibles.

- . Provides direct services to the client on an individual basis, by visiting each family at least once and provides education to the family on the importance of good health care and the need for periodic physical examinations and treatment, when necessary, to ensure a healthy growth pattern to adulthood.

- . Confers with all health care providers needed to meet each client's individual need including psychiatrists, doctors, dentists, specialists and designated personnel of the Dade County Health Department.

- . Visits or contacts by phone all providers and clients and works through daily contacts with these providers and clients to ensure open lines of communication.

- . Reports medical findings back to the client and makes appointments with the necessary provider to ensure that all health needs are met.

- . Reports non-medical related problems to the client's social worker and follows-up to see that client's needs are met.

- . Compiles all required data so that the Project's management information systems can be operative.

- . Writes social services notes on clients and makes decisions about referrals to other health care agencies.

- . Work is conducted under the direct supervision of the Sector Coordinator and is reviewed on a weekly basis.



IN THE CIRCUIT COURT OF THE 11TH  
JUDICIAL CIRCUIT IN AND FOR DADE  
COUNTY, FLORIDA.

JUVENILE - FAMILY DIVISION  
CASE NO.

IN RE: \_\_\_\_\_ :

Minor(s) \_\_\_\_\_ : PETITION FOR AUTHORIZATION TO  
CONSENT TO SCREENING AND NECESSARY  
by \_\_\_\_\_ : MEDICAL TREATMENT OF MINOR(S)

Petitioner. \_\_\_\_\_ :

Petitioner asks this Court for authorization to consent to the screening and necessary medical treatment of the above named minor(s), and as grounds therefore states as follows:

1. Petitioner is the \_\_\_\_\_ of the minor(s), who presently reside(s) with Petitioner at \_\_\_\_\_, Florida.

2. Petitioner has assumed responsibility for the care and support of the minor(s), and receives and Aid for Families with Dependent Children grant (A.F.D.C.) from the State of Florida for the care of the minor(s).

3. All A.F.D.C. recipients are eligible for Medicaid benefits, including periodic screening, diagnosis, and treatment for medical problems through the E.P.S.D.T. program, pursuant to 45 C.F.R. S249.10 (a)(3), Florida Statutes 409.266 and Fule 10C-7.16, Rules of the Department of Health and Rehabilitative Services.

4. Participation in the E.P.S.D.T. program is necessary for the welfare of the minor(s).

5. The minor(s) cannot participate in the E.P.S.D.T. program without the consent of a parent, guardian, or otherwise authorized individual.

6. The mother of the minor(s) \_\_\_\_\_  
and the father of the minor(s) \_\_\_\_\_.

7. Petitioner is an appropriate person to give such consent,  
and further it is in the best interest of the minor(s) to authorize  
Petitioner to give such consent.

8. The relief sought by Petitioner is authorized pursuant to this  
Court's "broad discretion in making orders protecting (infants') welfare."  
Brown V. Ripley, 119 So. 2d 712, 717 (1st DCA 1960).

WHEREFORE, Petitioner requests this Court to authorize Petitioner  
to consent to the screening and medical treatment of the above named  
minor(s).

\_\_\_\_\_  
, Petitioner

APPENDIX IV  
PROJECT FINDINGS

Project Experimental Group

Florida System Contemporary Control Group

Experimental Case Monitor Performance Report

## PROJECT FINDINGS

## PROJECT EXPERIMENTAL GROUP

2552 CHILDREN REQUEST E.P.S.D.T.DETERMINATION OF NEED

In Need of Screening  
2285 children (90%)

Already Screened  
267 children (10%)

SCREENING OUTCOME

Received Screening  
1525 children (67% in  
need)

Did not Receive Screening  
760 children (33% in need)

SCREENING STATUS

Positive Screen  
966 children (63%)  
1310 problems in 966  
children)

Negative Screen  
559 children (37%)

TREATMENT RESULTS

Treatment Not Completed  
254 problems (19%)  
171 children

Treatment Completed  
1056 problems (81%)  
795 children  
(31% of 2552 requests)  
(82% of 966 positive screens)

Case Completion

1354 children  
(59% of children in need)

## FURTHER BREAKDOWN OF EXPERIMENTAL CASE OUTCOMES

## EXPERIMENTAL GROUP

2552 CHILDREN REQUEST E.P.S.D.T.

Appointed for Screening  
1272 children 77%

Not Appointed for Screening  
580 children 23%

Reasons for not Being Appointed  
 already screened (267) (46%)  
 refused services (148) (26%)  
 could not be located (157) (27%)  
 other 8 (01%)  
 580 100%

Showed for Screening  
1525 children (77% of appointed)  
(60% of requests)

"No Show" for Screening  
447 children (23% of appointed)  
(18% of requests)

Reasons for No Show  
 missed 3 appointments (271) (61%)  
 moved/lost eligibility (176) (39%)  
 447 100%

SCREENING STATUS

Positive Screen  
(problems identified and referred)  
1310 (64%)  
1310 problems in 966 children)

Negative Screen  
(no problems identified)  
559 (37%)

Problem outcomes  
(1310)

Treatment Completed

Treatment Not Completed

1256 problems (81%)

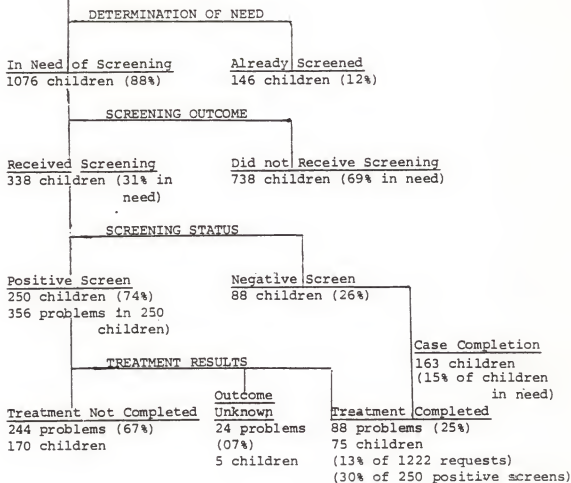
254 problems (19%)

Reason for not  
Completing Treatment

refused services 75 (30%)  
 moved/not elig. 38 (15%)  
 could not locate 39 (15%)  
 missed 3 appts. 102 (40%)  
 254 100%

## PROJECT FINDINGS

## FLORIDA SYSTEM CONTEMPORARY CONTROL GROUP

1222 CHILDREN REQUEST E.P.S.D.T.

E. P. S. D. T.

EXPERIMENTAL CASE MONITOR PERFORMANCE REPORT

V - CASE MANAGEMENT HOURS

|                 | <u>DAILY MEAN<br/>HOURS SPENT<br/>IN CASE<br/>MANAGEMENT</u> | <u>DAILY MEAN<br/>ACTIVE<br/>CASE LOAD</u> | <u>MEAN HOURS<br/>SPENT<br/>PER CASE<br/>PER DAY</u> | <u>MEAN WORKING<br/>DAYS IN<br/>SYSTEM-CLOSED<br/>CASES</u> | <u>MEAN CASE<br/>MANAGEMENT<br/>HOURS TO<br/>CLOSE A CASE</u> | <u>NUMBER OF<br/>FULL TIME<br/>EQUIVALENTS<br/>-FTE'S</u> |
|-----------------|--------------------------------------------------------------|--------------------------------------------|------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------------------|-----------------------------------------------------------|
| THIS MONTH      | 7.08                                                         | 70                                         | .10                                                  | 67.6                                                        | 6.76                                                          | .89                                                       |
| PROJECT-TO-DATE | 19.04                                                        | 214                                        | .09                                                  | 49.4                                                        | 4.45                                                          | 2.38                                                      |

SAMPLE FORM

This is a sample printout of  
the Experimental Case Monitor  
Performance Report.

APPENDIX V  
PSYCHOLOGICAL SCREENING INVENTORY



PSI

PSYCHOLOGICAL SCREENING INVENTORY

Reproduction of this form is prohibited  
without the written permission of the  
author: Dr. Ruth M. Pinnaas

Copr., Ruth Pinnaas 1978

DO NOT REPEAT ANY QUESTION OR ANY INSTRUCTION. DO NOT URGE CHILD IN ANY WAY.

|    |                                                                                                                                                                   | YES           | NO |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----|
| 1. | What is your name?<br>(Note a 3 - 15 second delay)<br>(Approximation of correct answer)                                                                           | —             | —  |
| 2. | What is your address?<br>(Note a 3 - 15 second delay)<br>(Approximation of correct answer)                                                                        | —             | —  |
| 3. | Say the alphabet.<br>(Enter letter at which child stopped)                                                                                                        | —             | —  |
|    | <u>Clapping</u> - Have child demonstrate clapping. All items should be presented to all children.                                                                 |               |    |
| 4. | 2 claps then 1 clap                                                                                                                                               | —             | —  |
| 5. | 2 claps then 3 claps                                                                                                                                              | —             | —  |
|    | 3 claps then 2 claps then 5 claps then 1 clap                                                                                                                     | —             | —  |
| 7. | Shave-and-a-haircut sequence                                                                                                                                      | —             | —  |
| 8. | 4 claps then 2 claps then 3 claps                                                                                                                                 | —             | —  |
|    | (Say, "I am going to say a word as though it were two words. You say it back to me as one word.")                                                                 |               |    |
| 9. | ka-at                                                                                                                                                             | —             | —  |
| 0. | ta-ruck                                                                                                                                                           | —             | —  |
|    | (Say, "I'm going to say a series of numbers. You say them back to me just as I have said them to you." (1 second intervals. STOP digits when one item is missed.) |               |    |
| 1. | 5, 4                                                                                                                                                              | 9, 7          | —  |
| 2. | 3, 8, 2                                                                                                                                                           | 6, 4, 1       | —  |
|    | 4, 7, 5, 10                                                                                                                                                       | 9, 6, 8, 3    | —  |
| 4. | 5, 9, 6, 8, 3                                                                                                                                                     | 3, 5, 8, 2, 9 | —  |

- |     |                         |                        |   |   |
|-----|-------------------------|------------------------|---|---|
| 15. | 9, 7, 4, 1, 2, 8        | 3, 8, 2, 9, 7, 4       | — | — |
| 16. | 6, 4, 1, 5, 8, 2, 3     | 9, 3, 6, 8, 4, 1, 7    | — | — |
| 17. | 3, 7, 10, 8, 2, 6, 5, 1 | 8, 5, 3, 7, 4, 1, 6, 9 | — | — |

(Without any comment, show child little plastic circle then hide it making sure child is watching you and that it can be reached easily when found.)

(Point to two things in the room)

18. Tell me what I pointed to or point to them in the same order that I did. — —

(Point to three different things in the room)

19. Tell me what I pointed to or point to them in the same order that I did. — —

(Point to four different things in the room)

20. Tell me what I pointed to or point to them in the same order that I did. — —

(For each of the next 3 questions, put the animals down in the order indicated, leave them down for 5 seconds then pick them up and hand them to child.) (Discontinue after one failure.)

21. (cow, dog) Put the animals down in the same order I had them. (Allow 10 seconds) — —
22. (dog, cat, cow) Put the animals down in the same order I had them. (Allow 10 seconds) — —
23. (cat, cow, horse, dog) Put the animals down in the same order I had them. (Allow 10 seconds) — —
24. Please find and give me the little plastic circle I hid before.  
(Say a word, let child spell, then say next word) — —
25. Spell the words: cat, dog, rain, horse.  
(underscore words spelled correctly) — —
- (Show card with "brown dog" sentence)
26. Read to me what is on this card. — —

(Continue to hold card with sentence on it.)

2. Point to each word as I say it.

— —

(Say the words in reverse order.)

(Show child the toothbrush.)

28. Tell me about this.

— —

(Child should speak within 3 seconds and say at least 5 words.)

29. Say or list as many words as you can between the time I say "go" and the time I say "stop."

—

(Sentences are not acceptable. Allow 30 seconds and enter the number of words said)

(Show card with scissors on it (for 3 seconds). Take it away and show card with 4 objects.)

30. Show me the object on this card that is the same as the one you just saw.

— —

(Show card with color wheel)

31. As I point to each one, name the colors on this color wheel.

— —

(Keep black triangle upward. Start with red and go around the wheel. Score "yes" only if all colors are named correctly.)

32. Show me three things in the room that are the same color as colors on the wheel. Tell me the name of the colors you are showing me.

— —

(Keep color wheel in view. Allow 15 seconds maximum.)

(Show child flash card with design. Have point up. Hand child paper and pencil.)

33. Please draw the design. — —

(Do not instruct child where on paper to put design. Allow 15 seconds. DO NOT ENTER ANY SCORE.)

(When child has completed drawing, instruct as follows and allow 5 seconds for each question.)

34. Place the pencil on the paper. — —

35. Place the pencil beside the paper. — —

36. Place the pencil under the paper. — —

(Take pencil and paper from child)

(Show child toothbrush)

37. Without talking, show me how this is used. — —

(If child extends finger while demonstrating, suggest he pull finger back into fist) (Allow 5 seconds)

(Show child whistle)

38. Without talking, show me how this is used.

(Allow 5 seconds)

(Show child fork)

39. Without talking, show me how this is used. — —

(Allow 5 seconds)

(Say, "I'm going to tell you some sentences. Do you think they are silly?") (Note: Enter "yes" when child indicates he understands the concept and remember, responses need not be verbal.)

40. Dogs always ride horses. — —

41. Stones float. — —

42. Cats bark. — —

43. A hammer cuts wood. — —

(Show child flash card with faces.)

- |     |                                                                       |   |   |
|-----|-----------------------------------------------------------------------|---|---|
| 45. | Show me the happy face. (Allow 5 seconds)                             | — | — |
| 45. | Show me the sad face. (Allow 5 seconds)                               | — | — |
| 46. | Show me the angry face. (Allow 5 seconds)                             | — | — |
| 47. | What season of the year is it?                                        | — | — |
| 48. | What state do you live in?                                            | — | — |
| 49. | What time of day do you eat breakfast?                                | — | — |
| 50. | How many hours between now and the time you will go to sleep tonight? | — | — |
- (Within 3 hours)

(For a "yes" answer, child must follow instructions accurately and must begin each action within 3 seconds.)

- |     |                                                                      |   |   |
|-----|----------------------------------------------------------------------|---|---|
|     | Point to your ear.                                                   | — | — |
| 52. | Put your finger on your ankle.                                       | — | — |
| 53. | Put your finger on your elbow.                                       | — | — |
| 54. | Put your hand on your knee.                                          | — | — |
| 55. | Put your finger next to your eye.                                    | — | — |
| 56. | Put your hand in a fist, and close your eyes and tap both shoulders. | — | — |

(Demonstrate mid-line cross-over.)

- |     |                                                      |   |   |
|-----|------------------------------------------------------|---|---|
| 57. | Do what I do.                                        | — | — |
| 58. | We're finished now. Let me see you skip to the door. | — | — |

(Following page to be filled out after child has left the room.)

NOTE: Check "no" only if behavior described in the question is extreme.

YES      NO

- |     |                                                                                                                |     |     |
|-----|----------------------------------------------------------------------------------------------------------------|-----|-----|
| 59. | The child seemed normally active rather than "jumpy."                                                          | ___ | ___ |
| 60. | The child seemed stimulated rather than over-stimulated by the environment.                                    | ___ | ___ |
| 61. | The child was able to focus his attention without looking aimlessly around the room or at the floor.           | ___ | ___ |
| 62. | Child paid attention and was not distracted by visual or auditory stimuli other than those you were providing. | ___ | ___ |
| 63. | The child answered questions without repeating either physical acts or spoken words over and over.             | ___ | ___ |
| 64. | The child seemed calm and poised without being very over-tired and sluggish.                                   | ___ | ___ |
| 65. | The child seemed to enjoy participating in this "test."                                                        | ___ | ___ |





APPENDIX VI

ZITA/ADT

#### WHAT IS ZITA/ADT?

The ZITA, or ZERO INPUT TRACKING ANALYZER was developed to present to the subject a series of standardized tasks each of which represents the essential elements of some real world problem.

The ADT, or AUXILIARY DISTRACTION TASK, produces a psychological distraction stress in the subject causing disruption of the tracking performance.

#### HISTORY-ZITA/ADT Project

The original requirement for the ZITA/ADT system stemmed from an observation by Mr. Walker while at RAE, Fairport, in 1950, that no data base existed from which the performance of a man operating a missile system could be predicted, much less the effect of enemy counterfire on that performance.

Long after, in 1961, Norman K. Walker Associates Inc. obtained contracts to "Investigate the Use of Tracking Tasks as Indicators of Stress" and an "Combat Efficiency of Human Operator Systems," and in 1966 Mr. Walker presented a paper at the Military Operations Research Society showing that Combat Degradation effects did exist, and could be predicted ahead of time by ZITA/ADT tests.

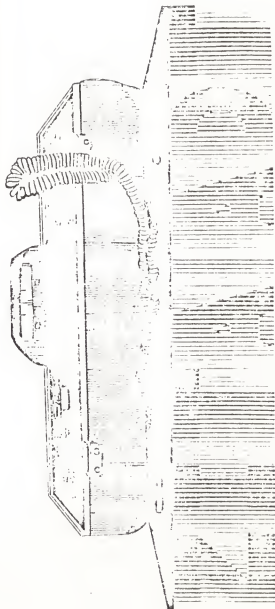
Results of tests on pilots showed appreciable differences between pilots under stress, and the USAF supported work aimed at generating a data base descriptive of Air Force pilots.

Delaware Vocational Rehabilitation Service purchased two ZITA/ADTs in 1972, and supported tests on 120 Staff and Clients, since they suspected some tasks generated stress, and some clients were stress sensitive.

At the end of the year Dr. Adler, a pediatrician in Anaheim, California (a specialist in treating children with learning or behaviour problems) suggested that children were under considerable stress while learning at school, and that ZITA/ADT might help him speed up his diagnostic process.

This collaboration has generated tests on 850 children plus another 250 on the new Mik Vill machine and on perhaps 250 adults and shows that ZITA/ADT is a powerful tool in the recognition and treatment of Minimal Brain Dysfunctions, the underlying cause of many learning problems.

NORMAN K. WALKER ASSOCIATES, INC.  
336 Ringwood Drive • Rockville, Maryland 20850



NORMAN K. WALKER ASSOCIATES, INC. 336 Ringwood Drive • Rockville, Maryland 20850 • 301 942 3125 / 301 881 7300

## WHY ZITA/ADT?

The ZITA/ADT system was developed as a means of measuring human performance on a wide variety of tasks under conditions of stress.

## HOW ZITA/ADT OPERATES

The ZITA subject is required to hold a spot of light as closely as possible in the center of a screen, using a two position control stick. A readout of the accumulated error appears at the end of the test run, and a record of the track is made by a pen-recorder. Tasks of increasing difficulty are offered by pushbutton controls.

To operate under stress conditions the ADT component is energized, and this generates a random series of bimodal pulses at 1, 2, 4 or 8 second intervals. The subject reacts to the clicks or visual signals by pressing one of two buttons with the fingers of the left hand. At the end of the run a readout is given of the two types of responses, and of the number of correct responses.

Operation of the ADT at the same time as the ZITA task normally causes a considerable increase in tracking error.

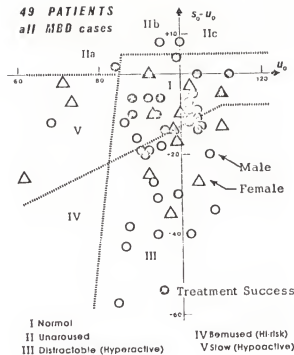
## APPLICATIONS

- To determine the ability of any given person to function in any specified environment
- To detect abnormalities in human performance
- To determine the difficulty of any task as measured by degradation of results under ADT stress
- To determine the stress level of any environment
- To measure the effect of any other factor or substance likely to influence human performance

## USES

- To detect certain forms of Learning Disabilities in children and to quantify the success of remedial measures
- To qualify in the Armed Forces and in Industry, recruits who will perform well under extreme stress
- To match Industrial Personnel to the best advantage with available jobs and working conditions
- To detect, by long term monitoring, addictive effects such as alcoholism and over-tension
- To quantify the effects and side effects of different pharmaceuticals

## 49 PATIENTS all MBD cases



## USES

- (1) Detection and Monitoring
  - (a) Stress Sensitivity
  - (b) Learning Disabilities
  - (c) Minimal Brain Dysfunction (MBD)
  - (d) Schizophrenia
  - (e) Alcoholism
- (2) Investigation
  - (a) Juvenile Delinquency
  - (b) Testing of Pharmaceuticals
  - (c) Evaluation of Treatment
  - (d) Military Operations
- (3) Selection
  - (a) Pilots
  - (b) Vocational Rehabilitation
  - (c) Key Punch Operators
  - (d) Air Traffic Controllers

## USERS

A number of Agencies have already participated in programs using ZITA/ADT.

These include:

- US Army
- US Navy
- US Air Force
- Department of Defense
- British Royal Navy
- NASA
- Delaware Vocational Rehabilitation Service
- John F. Kennedy Institute, Baltimore
- Children's Medical Group, Anaheim, California
- Arlington Juvenile Court, Virginia
- Accotink Academy, Virginia
- California Association for Neurologically Handicapped Children
- ACLD (Arlington County, Virginia)
- McGinnish School, Miami, Florida
- Centralia School District, California
- Fountain Valley School District, California
- EPSTI Project, Miami, Florida

## BIOGRAPHY—Norman K. Walker, B.Sc. (Phys)

Mr. Walker is a physicist, who took his degree at London University during World War II while working at the Royal Aircraft Establishment, Farnborough.

After the War, he transferred to the new Guided Missiles Department, and eventually became head of the Weapons Design Study Group, responsible for the preliminary design of a British guided missile.

In this capacity he was required to function as a Systems Specialist drawing together and coordinating the ideas of ten or more specialist groups to form a workable design package.

After a period in Washington attached to the British Embassy, he emigrated to the United States, and in 1951 formed Norman K. Walker Assoc., Inc., Systems Engineering Consultants.

It is this systems approach which has guided the development of ZITA/ADT, which is now a tool usable by doctors, psychiatrists, psychologists, education specialists and others to solve a basic systems problem. "Why can't Tommy learn?"

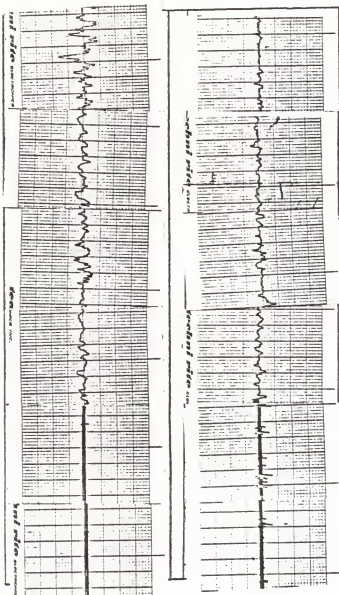
## ZITA EVALUATION

NAME: \_\_\_\_\_ MEDICAID NO.                  -     

AGE: 36 YEARS 10 MONTHS DATE OF BIRTH \_\_\_\_\_

SCREENING DATE 3/9/77 RH ☒ LH ☐ SPANISH INST. ☐

SCREENED BY: MPH



PROJECT USE ONLY  
Screening Results:

POSITIVE ☐  
NEGATIVE ☐

Referral:

YES ☐  
NO ☐

| ZITA Readout     |     | ADT READOUTS |     |    |    |
|------------------|-----|--------------|-----|----|----|
| ZITA Task        |     | L            | C't | R  | D* |
| 1                | 367 |              |     |    |    |
| ADT              |     | 3            | 4   | 1  |    |
| ADT              |     | 9            | 12  | 6  |    |
| 1s               | 188 | 12           | 14  | 3  |    |
| 1                | 202 |              |     |    |    |
| 1s               | 149 | 5            | 15  | 10 |    |
|                  |     |              |     |    |    |
| o                | 99  |              |     |    |    |
| Os               | 101 | 2            | 4   | 2  |    |
| 1                | 109 |              |     |    |    |
| 1s               | 112 | 2            | 4   | 2  |    |
| REST AND STRETCH |     |              |     |    |    |
| 1                | 175 |              |     |    |    |
| 1s               | 143 | 10           | 14  | 5  |    |
|                  |     |              |     |    |    |
| o                | 142 |              |     |    |    |
| Os               | 118 | 11           | 15  | 4  |    |

TESTER REMARKS:

ANXIETY \_\_\_\_\_

MOTIVATION \_\_\_\_\_

SLOW \_\_\_\_\_

COOPERATION \_\_\_\_\_

ZITA/ADTTASKINFERENCE

0

(A) POOR MOTOR CONTROL

(B) CHECK EEG

0s

(c) EASILY DISTRACTED ON '0'

1

(D) 'SLOW' (MOTOR OR VISUAL JUDGEMENT)

1 and 0

(E) VISUAL JUDGEMENT PROBLEMS

1s

(F) EASILY DISTRACTED ON MOTOR, OR IN  
VISUAL JUDGEMENT OR BOTH

(G) UNDERAROUSSED OR UNMOTIVATED

1 and 1s

(H) BEMUSED (HI-RISK)

APPENDIX VII  
PARENTAL CONSENT LETTERS

DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES  
E.P.S.D.T. DEMONSTRATION PROJECT  
DEVELOPMENTAL RESEARCH

The Department of Health and Rehabilitative Services, and the Greater Miami Epilepsy Foundation, are doing research to identify developmental problems in children and to find sources to treat the problems. The Department of HRS would greatly appreciate your participation in this developmental research so that your child, as well as other children in the future, will be able to benefit from the findings. If you agree to allow your child to take part, please sign the consent form below authorizing the Department of Health and Rehabilitative Services and the Greater Miami Epilepsy Foundation to conduct the assessment.

I, \_\_\_\_\_, do hereby authorize and provide my informed written consent for the Department of Health and Rehabilitative Services in conjunction with the Greater Miami Epilepsy Foundation to conduct developmental assessment of my child \_\_\_\_\_.

I understand that there will be no charge for the developmental assessment and that the results will be presented to me after the test scores are analyzed.

I further understand that the information concerning my child will be kept in the strictest of confidence and will be used only for research purposes by the Department of Health and Rehabilitative Services and its agents.

\_\_\_\_\_  
PARENT OR GUARDIAN

\_\_\_\_\_  
DATE

## DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES

## E.P.S.D.T. DEMONSTRATION PROJECT

## INVESTIGACION DE DESARROLLO

El Department of Health and Rehabilitative Services y el Greater Miami Epilepsy Foundation, estan haciendo una investigacion para identificar problemas en el desarrollo de niños, y estan buscando maneras de tratar estos problemas. El Department of Health and Rehabilitative Services agradeceria inmensamente su participacion en esta investigacion de desarrollo, para que su niño, tanto como otros niños, en el futuro, puedan beneficiarse de estos resultados. Si usted permite que su niño tome parte en este programa, por favor firme la autorizacion del Department of Health and Rehabilitative Services y el Greater Miami Epilepsy Foundation, para que la investigacion se pueda llevar a cabo.

Yo, \_\_\_\_\_ autorizo  
y doy mi consentimiento por escrito al Department of Health  
Rehabilitative Services en conjunto con el Greater Miami  
Epilepsy Foundation para llevar a cabo la investigacion del  
desarrollo de mi hijo \_\_\_\_\_.

Yo entiendo que no habra costo para hacer esta evaluacion,  
y que me daran los resultados despues de que los exámenes hayan  
sido analizados.

Ademas entiendo que la informacion con respecto a mi  
hijo sera mantenida en estricta confidencia y sera usada solamente  
con propositos de investigacion por el Department of Health and  
Rehabilitative Services y el Greater Miami Epilepsy Foundation  
y sus agentes.

\_\_\_\_\_  
PADRES O GUARDIAN

\_\_\_\_\_  
FECHA



APPENDIX VIII  
DIAGNOSTIC RESULTS

DEVELOPMENTAL SCREENING DIAGNOSTIC RESULTS  
FOR THE DADE COUNTY E.P.S.D.T. DEMONSTRATION PROJECT

Child's Name \_\_\_\_\_ Medicaid # \_\_\_\_\_

Address \_\_\_\_\_ Date of Birth \_\_\_\_\_  
(child's)

Phone \_\_\_\_\_ Name of Parent \_\_\_\_\_

=====

PART I WISC ☐ WISC-R ☐

Verbal

Performance

Full Scale

=====

PART II WRAT Test Results

Reading

Spelling

Arithmetic

=====

PART III Psychiatric Evaluation

Please evaluate this child in each of the following areas and indicate the diagnostic outcome:

Intellectual dysfunction \_\_\_\_\_

Emotional Problem \_\_\_\_\_

Learning Disability \_\_\_\_\_

\_\_\_\_\_  
SIGNATURE OF EXAMINING PHYSICIAN

\_\_\_\_\_  
DATE

## DEVELOPMENTAL SCREENING SUMMARY SHEET - CHCP

NAME \_\_\_\_\_ DATE OF BIRTH \_\_\_\_\_ SEX \_\_\_\_\_  
 DATE OF TESTING \_\_\_\_\_ DECIMAL AGE \_\_\_\_\_ SCHOOL GRADE \_\_\_\_\_

\*\*\*\*\*

DIAGNOSTIC RESULTS

WISC-R V. \_\_\_\_\_ P. \_\_\_\_\_ F.S. \_\_\_\_\_  
 WRAT R. \_\_\_\_\_ SP. \_\_\_\_\_ AR. \_\_\_\_\_ R.C. \_\_\_\_\_  
 PSYCHIATRIC EVALUATION INTELLECTUAL DYSFUNCTION \_\_\_\_\_  
 EMOTIONAL PROBLEM \_\_\_\_\_  
 LEARNING DISABILITY \_\_\_\_\_

| VARIANT | NON-VARIANT |
|---------|-------------|
|         |             |
|         |             |
|         |             |
|         |             |
|         |             |

\*\*\*\*\*

ZITA RESULTS

TESTER \_\_\_\_\_ HAND L R SI \_\_\_\_\_

| <u>VARIABLE</u>     | <u>SCORE</u> |
|---------------------|--------------|
| 0 (age adjusted)    | _____        |
| 1 (age adjusted)    | _____        |
| 1 (gets worse)      | _____        |
| 0 <sub>sc</sub> /0  | _____        |
| 1 <sub>sc</sub> /1  | _____        |
| 1 / 0               | _____        |
| 1 <sub>sc</sub> & 1 | _____        |

| POSITIVE | NEGATIVE |
|----------|----------|
|          |          |
|          |          |
|          |          |
|          |          |
|          |          |
|          |          |

\*\*\*\*\*

PSI

TESTER \_\_\_\_\_

RAW SCORE \_\_\_\_\_  
 HRD \_\_\_\_\_  
 DQ \_\_\_\_\_  
 ASM \_\_\_\_\_

| POSITIVE | NEGATIVE |
|----------|----------|
|          |          |

APPENDIX IX  
COVER LETTER AND REMINDER OF APPOINTMENT FOR  
SCHOOL INTERVENTION

## E.P.S.D.T. DEMONSTRATION PROJECT

1350 N.W. 12th Avenue  
Suite #552  
Miami, Florida 33125

Dear Principal:

As specified in the agreement between the Department of Health and Rehabilitative Services and the Dade County School Board, the following children are to receive the enclosed reminders of dental/medical appointments, prior to their next day's attendance at school.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

If there are any questions, please contact John Wood at 325-2984.

Yours truly,

John Wood  
Project Manager

JW/nkm

REMINDER OF APPOINTMENT

Dear \_\_\_\_\_:

This is to remind you that your child \_\_\_\_\_  
has a Medical/Dental appointment with \_\_\_\_\_  
at \_\_\_\_\_ on \_\_\_\_\_  
time: \_\_\_\_\_

\_\_\_\_\_  
CASE MONITORAVISO IMPORTANTE

Estimada \_\_\_\_\_:

La presente is para informarle que su niño \_\_\_\_\_  
tiene una cita Medica o Dental con \_\_\_\_\_  
en \_\_\_\_\_ el dia \_\_\_\_\_  
hora: \_\_\_\_\_.

Atentamente,

\_\_\_\_\_  
TRABAJADORA SOCIAL

APPENDIX X

SCHOOL INTERVENTION STUDY PROCEDURES AND FLOWCHART

SCHOOL INTERVENTION STUDY PROCEDURES

The following procedures will be observed for the school intervention study. All staff directly affected will be responsible for their implementation.

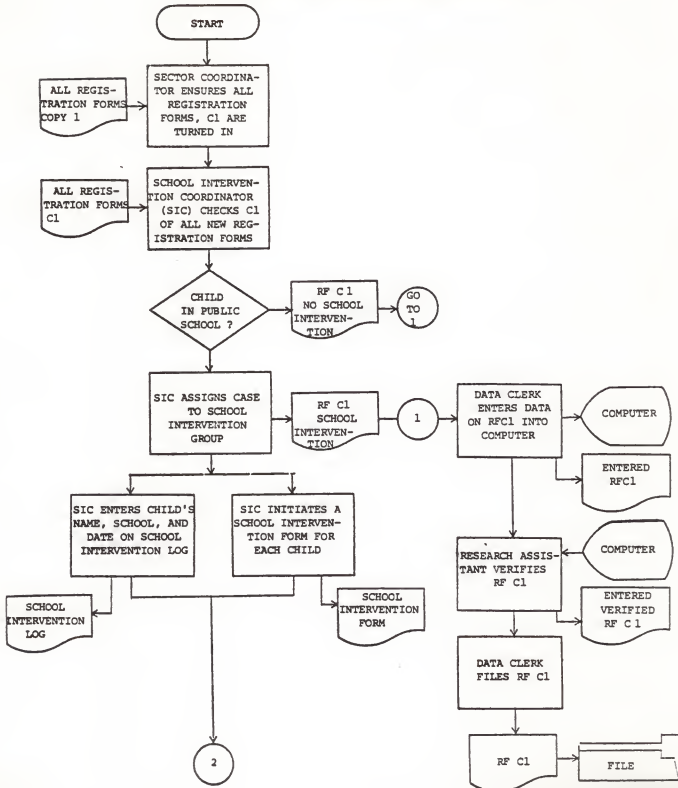
1. A quota sample of 50 cases will be selected to receive school intervention. Sampling will begin in October and will consist of all children in the case monitoring experimental group who attend public school.
2. A project clerk will be assigned half-time to the school intervention study. The clerk will perform the following duties:
  - a. The School Intervention clerk will check copy one of the registration form turned in by the case monitor (after the intake interview), he/she will code the "School Attendant" and assign the case to the school intervention group by checking the "School Intervention" box on the registration form. At this time, he/she will write the child's name, school, case monitor's name and date on the "School Intervention Log". (a prototype log is attached).
  - b. The clerk will then initiate a "School Intervention Form" for each child listed on the log. On the school

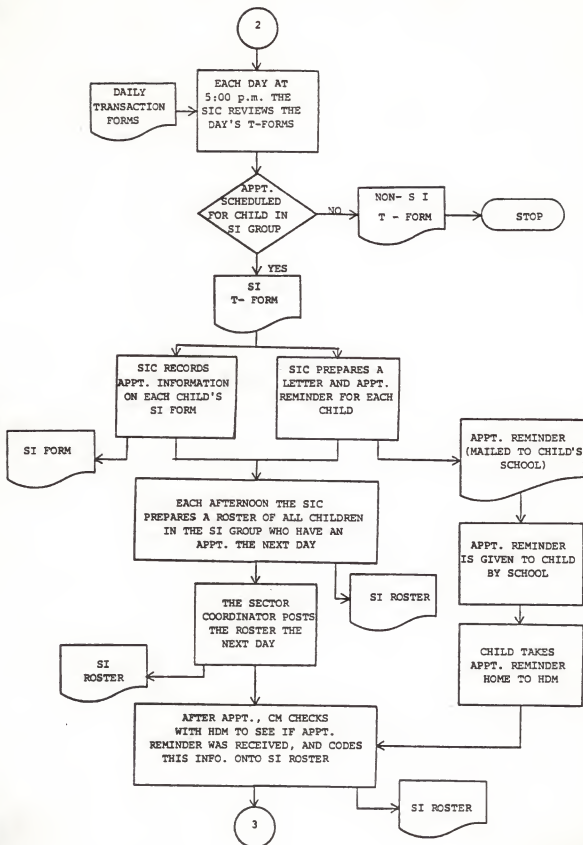


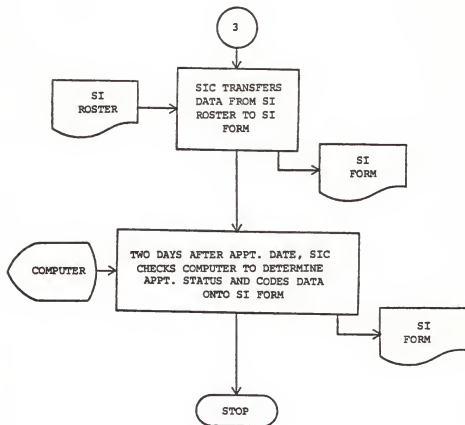
intervention form will be recorded all school intervention events and times as they occur (a prototype form is attached).

- c. Each day between 5:00 p.m. and 5:30 p.m. the clerk will review the day's transaction forms for experimental cases and record scheduled appointments for children listed on the school intervention log. The clerk will record the date the appointment was made, the appointment date, site/provider and whether it is a screening or treatment appointment on the school intervention form.
- d. That same day (before 5:30 p.m.), the clerk will prepare a letter and appointment reminder to the child's school. These will be sent out in the next morning's mail.
- e. Two days after the scheduled appointment date, the clerk will find out from the case monitor if the appointment was kept and record this information on the school intervention form.
- f. For each of the appointments for which letters were sent, the clerk will ask the case monitor to contact the health decision maker to ask her if she received the appointment reminder and record this information on the school intervention form. Contact should be made with health decision makers within two working days of the date of appointment.

FLOW CHART OF SCHOOL INTERVENTION PROCEDURES







APPENDIX XI

PROCEDURES FOR SCHOOL INTERVENTION - PHASE II

PROCEDURES FOR SCHOOL INTERVENTION - PHASE II

School Intervention - Phase II will begin on March 13, 1978 and run through the close of school in June, 1978. Appointment reminders will be sent to the schools for the first screening appointment only, and for no other screening or treatment appointments. No attempt will be made to determine if the appointment reminders reach the intended health decision makers. Two groups will be sampled, an experimental group and a control group. Members of both groups will be given identical case management treatment, with the exception that children in the experimental group will have appointment reminders mailed to their schools. Procedures for Phase II are as follows:

1. During the family educating session, the case monitor will determine the schools attended by all school age children in the family. This information will be recorded on the registration form (copy 1). Registration forms are given to the data clerk for computer entry.
2. During computer entry of copy 1 of the registration form the data clerk will check "yes" under school intervention for all children who attend a public school (i.e., she will check "yes" on the form and enter a "Y" into the computer under school intervention). After computer entry, registration forms are given to the research assistant for verification.
3. After verification, the research assistant will randomly assign all school intervention cases to either the experimental or the control group. A coin toss will be used to determine into which group a case will be placed. All family members will be placed in the same group.
4. The school intervention coordinator will prepare a school intervention card for all children in the school intervention group. This card will include the child's name, medicaid number, group code (experimental or control) and space to record screening appointment information.
5. All school intervention cards will be placed in a "pending screening appointment" file in alphabetical order. Cards will remain in the "pending" file until the first screening appointment has been scheduled and the appointment reminder sent. School intervention

cards will then be placed in a "completed" file.

6. The school intervention coordinator will be responsible for preparing and mailing reminder letters to the schools. The date made and appointment date for all first screening appointments will be recorded on each school intervention card. In addition, the date that the appointment reminder was sent will be recorded on the cards of experimental group children, and "no letter sent-control case" will be recorded on the cards of control cases.

APPENDIX XII

PARENTAL CONSENT FORM AND REFERRAL LETTER  
FOR THE HANDICAPPED SECTION



---

DATE

---

PARENT'S NAMECONSENT FORM

The Early and Periodic Screening, Diagnosis and Treatment (E.P.S.D.T.) Program has found that your child \_\_\_\_\_ may have a "handicapping" condition that may affect his education.

Federal law (The Education For All Handicapped Children Act of 1975) requires that schools identify all children with handicapping conditions in order that supportive services and individualized programs can be provided. However, handicapping conditions are not always obvious. Therefore, we feel that the help the Dade County Public Schools could offer your child may be beneficial to his or her educational career. The Dade County Public Schools have assured us that information concerning your child (his or her name, Medicaid eligibility, medical diagnosis, etc.) will be kept in the strictest of confidence and used only for the purpose of improving educational services to your child.

If you agree to allow the E.P.S.D.T. Program to inform the Dade County Public Schools about your child's handicapping conditions, please sign below.

Signed: \_\_\_\_\_

PARENT'S SIGNATURE

## E.P.S.D.T. DEMONSTRATION PROJECT

1350 N.W. 12th Avenue  
Suite #552  
Miami, Florida 33125

Dr. Carol Fineman  
Coordinator  
Diagnostic Resource Center  
3196 S.W. 62nd Avenue  
Miami, Florida 33155

Dear Dr. Fineman:

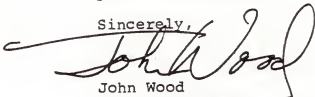
\_\_\_\_\_ has been  
child's name  
screened and diagnosed as having a developmental problem  
which may represent a handicapping condition as defined in  
PL 94-142 (The Education for All Handicapped Children Act  
of 1975). The attached parent Consent Form allows the  
Project to inform you about this condition.

If you have any other questions about the child,  
please contact me at 325-2984.

Also, please send back the attached form which will  
indicate if a special program was considered necessary, and  
if yes, was it implemented?

Thank you for all of your assistance and cooperation.

Sincerely,



John Wood  
Project Manager

JW/aml

SPECIAL EDUCATION REFERRAL FORM

\_\_\_\_\_  
CHILD'S NAME

\_\_\_\_\_  
ADDRESS

\_\_\_\_\_  
PHONE #

\_\_\_\_\_  
MOTHER'S NAME

Was a special education program considered necessary?

☐ YES

☐ NO

If yes, was the special program implemented?

☐ YES

☐ NO

SPECIAL EDUCATION REFERRAL FORM

\_\_\_\_\_  
CHILD'S NAME

\_\_\_\_\_  
ADDRESS

\_\_\_\_\_  
PHONE #

\_\_\_\_\_  
MOTHER'S NAME

Was a special education program considered necessary?

☐ YES

☐ NO

If yes, was the special program implemented?

☐ YES

☐ NO

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